



REPORT OF THE
STANDING COMMITTEE ON LEGISLATION
IN RELATION TO
FORENSIC PROCEDURES AND DNA PROFILING

Presented by the Hon Bruce Donaldson (Chairman)

Report 46

STANDING COMMITTEE ON LEGISLATION

Terms of Reference:

- 1 There is hereby appointed a standing committee to be known as the *Legislation Committee*.
- 2 The Committee consists of 5 members.
- 3 A Bill originating in either House, other than a Bill which the Council may not amend, may be referred to the Committee after its second reading or during any subsequent stage by motion without notice.
- 4 A referral under clause 3 includes a recommittal.
- 5 The functions of the Committee are to consider and report on
 - (a) Bills referred under this order;
 - (b) what written laws of the State and spent or obsolete Acts of Parliament might be repealed from time to time;
 - (c) what amendments of a technical or drafting nature might be made to the statute book;
 - (d) the form and availability of written laws and their publication.

Members at the time of this inquiry:

Hon Bruce Donaldson MLC (Chairman)

Hon Bill Stretch MLC (Deputy Chairman)

Hon John Cowdell MLC

Hon Derrick Tomlinson MLC

Hon Giz Watson MLC

Staff at the time of this inquiry:

Mr Michael Coleman and Mr Michael Smyth, Advisory/Research Officers

Ms Connie Fierro and Ms Jan Paniperis, Committee Clerks

Address:

Parliament House, Perth WA 6000, ph (08) 9222 7300, fax (08) 9222 7805

ISBN 0 7309 89 224

CONTENTS

CHAPTER 1	EXECUTIVE SUMMARY	1
	1.1 TERMS OF REFERENCE	1
	1.2 AUSTRALIAN MODELS	2
	1.3 PROPOSED FURTHER INVESTIGATION	3
CHAPTER 2	MATTERS FOR INVESTIGATION	4
	2.1 POLICY GOALS	4
	2.2 QUESTIONS FOR THE COMMITTEE	4
	2.3 FORENSIC PROCEDURES IN OTHER JURISDICTIONS	7
	2.3.1 United Kingdom	7
	2.3.2 United States of America	7
	2.3.3 Germany	7
	2.4 ESTABLISHMENT OF DNA DATABASE - TECHNICAL MATTERS	7
	2.5 TAKING FORENSIC DNA SAMPLES	9
	2.6 ANALYSIS OF DNA SAMPLES	10
	2.7 EXTENT OF DNA DATABASE AND USE IN INVESTIGATIONS	11
	2.8 STORAGE OF DNA SAMPLES AND DNA INFORMATION	13
	2.9 USING DNA DATABASE INFORMATION AS EVIDENCE	15
	APPENDIX A: PROPOSED ITINERARY	17
	APPENDIX B: COSTINGS	20

CHAPTER 1

EXECUTIVE SUMMARY

1.1 TERMS OF REFERENCE

On 20 August 1998, following this Committee's completion of its Report into the *Criminal Law Amendment Bill (No. 1) 1998* ("Bill"), the Attorney General moved and the House agreed that the Committee conduct a further inquiry into matters raised by the Committee's inquiry into the Bill.

The referral to the Committee was in the following terms:

*"That the Legislation Committee have power to inquire into and report on those recommendations, contained in the Committee's report on the Criminal Law Amendment Bill (No. 1) 1998, relating to the taking of forensic samples and stalking, that remain for consideration consequent upon the enactment of that Bill."*¹

The recommendations referred to in the motion are as follows.

- At page 7 of the Report:

*"The Committee recommends that in the interests of the efficient and more effective resolution of crime, a broader examination of forensic procedures and DNA profiling is warranted including its effect on civil liberties and responsibilities."*²

- At page 13 of the Report:

*"The Committee recommends that further work be undertaken to examine the issue of stalking so that all likely manifestations of stalking are included in the legislation. Appropriate measures should be included to ensure that breaches of restraining orders under the Restraining Orders Act 1997 and breaches of bail conditions under the Bail Act 1982 trigger appropriate offences under stalking legislation."*³

The Bill already reported on by the Committee included provisions relating to **taking** of DNA samples by police officers. However, the Bill did not deal with more complex issues such as the establishment of a DNA database, storage of DNA samples and DNA profiles,

¹ Hansard, Legislative Council 20/8/1998, p583

² Legislative Council Standing Committee on Legislation, Report in Relation to *Criminal Law Amendment Bill (No. 1) 1997*, p7

³ Ibid, p13

and the uses which can be made of DNA information, eg to assist in police investigations and as evidence. The Committee is investigating each of these fields of activity in the present inquiry.

1.2 AUSTRALIAN MODELS

In pursuing the inquiry, most of the Committee's investigations have thus far concerned the term of reference relating to DNA procedures and forensic profiling.

The Committee has visited the Western Australian Centre for Pathology and Medical Research ("Path Centre") to observe the forensic procedures (including DNA profiling) undertaken by the Path Centre. The Committee also travelled to Melbourne and Adelaide between the 5th and 9th of October 1998.

Victoria was the first State in Australia to enact comprehensive legislation dealing with forensic procedures, the *Crimes (Amendment) Act 1993*, which was enacted following the publication of the *Report on Body Samples and Examinations* by the Victorian Consultative Committee on Police Powers on Investigation ("the Coldrey Report"). These provisions were further strengthened by the *Crimes (Amendment) Act 1997*, which, among other things, provides for the taking of forensic samples from convicted offenders currently held in prison.

In Victoria the Committee met with representatives from the following departments and agencies:

- Victorian Police - Legislative Review and Proposals
- Victorian Police - Forensic Sample Implementation Committee
- Office of Public Prosecution - Policy Advisory/ Court Appeals Section
- State Coroner's Office - Head of Forensic Medicine
- Attorney General's Department - Policy Unit
- National Institute of Forensic Science
- Victorian Criminal Bar
- Law Institute of Victoria
- The Victorian Council for Civil Liberties
- Victorian Forensic Science Centre

The South Australian Parliament enacted the *Criminal Law (Forensic Procedures) Act 1998*, containing extensive safeguards surrounding the taking of forensic samples. This Act, which at 10 December 1998 is yet to be proclaimed, is closely based on the *Forensic Procedures Model Provisions* ("Model Bill") developed and approved in principle by the Model Criminal Code Officers' Committee of the Standing Committee of Attorneys-General. In turn, the Model Bill draws on many of the recommendations contained in the Coldrey Report.

In South Australia the Committee met with representatives from the following departments and agencies:

- Forensic Science South Australia

- Forensic Odontology Unit
- Attorney General's Department
- Director of Public Prosecutions
- South Australian Police - Prosecution Services
- South Australian Police - Policy and Projects
- South Australian Bar
- Law Society of South Australia

1.3 PROPOSED FURTHER INVESTIGATION

The Committee proposes to investigate DNA databases in three jurisdictions - the United Kingdom, Germany and the United States - over 15 days in January and February 1999. The matters to be investigated are discussed in detail in Chapter 2 of this Report.

The jurisdictions to be investigated are world leaders in the taking, storage, analysis and use of DNA samples and DNA profiles. The respective significance of the jurisdictions for the purposes of the inquiry can be summarised as follows:

- the United Kingdom pioneered the development of DNA-related technology, has had a national DNA database in operation since 1995 and remains at the forefront of DNA forensic technology;
- Germany has a different but similarly advanced DNA system to that of the United Kingdom and has led the development of a trans-European and eventually international standard for DNA forensic technology; and
- the United States has a different DNA system and a different regulatory regime to that of the United Kingdom. It faces similar issues to Australia in having to combine the systems of a number of jurisdictions into a workable whole, under the umbrella of the FBI.

As might be expected, each of these jurisdictions is advanced not only in the technology available to investigators, but also in consideration of the potential pitfalls, regulatory framework, safeguards and oversight of DNA technology. The Committee will meet with persons and organisations involved both in the technological aspects and the regulatory aspects of DNA databases.

The Committee intends also to take the opportunity to collate evidence on any matters pertaining to the areas of **stalking** and **sentencing**.

CHAPTER 2

MATTERS FOR INVESTIGATION

2.1 POLICY GOALS

In implementing a DNA database, Western Australia must seek to promote two potentially conflicting policy goals:

- to maximise the usefulness of the DNA database as a tool available to state agencies in carrying out their duties, principally the investigation of criminal activity. The Committee has been told that the introduction of a uniform, broad-based national DNA database in the United Kingdom has led to a marked improvement in the proportion of crimes being solved, clearly a desirable outcome for Western Australia⁴; and
- to protect the civil liberties and right to privacy of members of the public, with respect to the establishment, maintenance and use of the DNA database.

The issues relating to a DNA database in Western Australia can be broken into a number of fields of activity, discussed at paragraph [2.4] forward. Clearly, the above policies have the potential to conflict in at least some of these fields. An appropriate regulatory regime will seek to balance the policies in each area where conflicts could arise.

2.2 QUESTIONS FOR THE COMMITTEE

Without limiting the scope of the inquiry, some of the specific questions which have arisen in the course of the inquiry thus far and which warrant further investigation by the Committee are as follows. The questions are loosely grouped under the different fields of activity relating to DNA databases, although a number of questions relate to more than activity.

Establishment of the DNA database - technical matters (see [2.4])

1. To establish a DNA database in Western Australia, what changes are required to existing legislative, funding and administrative structures?
2. How and to what extent should the Western Australian DNA database be linked with DNA databases in other Australian jurisdictions?

⁴ Chief Constable D.G.Gunn (1997): *National DNA Database - Presentation to Australian Chief Police Officers*, tabled before the Committee by Mr Alistair Ross, p30

3. What are the advantages and disadvantages for Western Australia and other Australian jurisdictions of adopting the US CODIS system, the UK system or the European Network of Forensic Science Institutes standardisation?
4. How and to what extent should the Western Australian and other Australian DNA databases be linked with DNA databases in other countries?
5. What level of funding is required to establish and maintain a DNA database in its initial stages, and from where should funding be sourced?
6. Who should be responsible for regulatory oversight of the DNA database?
7. Should the regulatory regime be set out in the *Criminal Code*, *Police Act 1892* or separate legislation?

Taking forensic DNA samples (see [2.5])

8. In what circumstances should police be empowered to take a DNA sample without consent, eg:
 - (a) where a person has been convicted of an offence?
 - (b) where a person is charged with an offence?
 - (c) where a person is reasonably suspected of involvement in an offence?
9. Should the circumstances be additionally restricted to only certain types of offence?
10. Should there be a minimum age at which a DNA sample can be taken without consent, or other restrictions relating to samples from juveniles?
11. Who should be empowered to authorise taking of samples without consent, eg a magistrate; specifically empowered police officers; any senior police officer; or any police officer?
12. At the time a sample is physically taken, what safeguards are necessary to protect the wellbeing of each of: the person whose sample is taken; the medical officer taking the sample; and police officers assisting the medical officer?
13. Should there be different restrictions applying to different types of samples, such as a blood sample and a buccal swab (inside cheek)?
14. What procedures should apply at the time a sample is taken to ensure that the sample is correctly identified and cannot be tampered with?
15. How do recommended procedures for each of these matters compare with existing police procedures? What alterations to existing procedures are needed?

Analysis of DNA samples (see [2.6])

16. How should the functions relating to storage and analysis of samples be separated from the functions of the police service or other agency seeking to use samples?
17. What safeguards are needed to ensure the integrity of analysis of samples and prevent tampering or contamination?

Extent of DNA database and use in investigations (see [2.7])

18. How effective an investigative tool is the DNA database?
19. How effective an investigative tool is a broad-based database such as that of the UK, compared with a more restricted databases such as that of the US?
20. Which agencies should have access to Western Australia's DNA database, eg WA Police Service; all Australian Police Services; other Australian agencies such as customs and immigration departments; international agencies?
21. To what degree does success of a DNA database as an investigative tool justify restricting the civil liberties of the public, in terms of removing privacy constraints, retaining samples of persons not convicted and so on?
22. Can DNA information be used to establish physical characteristics such as race and hair colour? Should there be restrictions on such use?

Storage of DNA samples and DNA information (see [2.8])

23. How should the original DNA sample be stored?
24. How should the computer-generated DNA profile be stored?
25. Should there be a time limit on storage of DNA samples and/or DNA profiles? Should there be different limits for different categories of persons, eg suspects, persons charged, persons convicted?
26. Who should have access to DNA samples and DNA profiles, and how should their requests for access to information be processed?

Use of DNA information as evidence (see [2.9])

27. Should DNA information be admissible as evidence?
28. What safeguards are needed to meet concerns about the reliability of DNA information as evidence?

2.3 FORENSIC PROCEDURES IN OTHER JURISDICTIONS

The Committee has identified the United Kingdom, Germany and the United States of America as leading jurisdictions in the establishment and use of DNA databases. The status of systems in each country can be summarised as follows.

2.3.1 United Kingdom

The United Kingdom introduced the world's first comprehensive National DNA Database on 10 April 1995.⁵ The United Kingdom has the distinction of inventing what is now colloquially known as "DNA fingerprinting". In 1984 Professor Alec Jeffreys of the University of Leicester inadvertently stumbled on a way of establishing a human's genetic identification. Since its inception, the United Kingdom has been at the forefront of the development of forensic DNA procedures, both technologically and in the regulatory and legislative response to the technology.

2.3.2 United States of America

The FBI Laboratory opened its Forensic Science Research and Training Centre in Quantico, Virginia, in 1981. A large and increasing proportion of the work of the Centre is now devoted to establishment and operation of its DNA database. As an indication of the scale of DNA database operations at the Centre, during 1997-98 the laboratory conducted 543,556 evidentiary examinations of 149,556 specimens.⁶

The Department of Justice in Washington DC is responsible for programs and laws relating to use of DNA information as evidence. The Department supports a number of agencies responsible for disseminating information about DNA databases, reviewing legal and procedural issues relating to DNA and advising Government on DNA matters.

2.3.3 Germany

The European Community is of necessity undertaking a great deal of work to standardise DNA databases internationally. Much of this effort springs from a 1996 conference held in Mainz, Germany, including the establishment of EDNAP, the European DNA Profiling Group. Mainz remains the central point for EDNAP activities through its Institute of Forensic Medicine.

2.4 ESTABLISHMENT OF DNA DATABASE - TECHNICAL MATTERS

Australian jurisdictions appear to be reasonably advanced in development of a national standard database. However, much work remains to be done in each jurisdiction to meet the needs and respond to the prevailing circumstances of each jurisdiction while ensuring

⁵ Chief Constable D.G.Gunn (1997): *National DNA Database - Presentation to Australian Chief Police Officers*, tabled before the Committee by Mr Alistair Ross, p5

⁶ Federal Bureau of Investigations (U.S.) (1998): FBI Laboratory

national viability. It is important for Western Australia and for all Australian jurisdictions that the most suitable of the available technologies is adopted, and that appropriate regulatory and infrastructure support systems are put in place.

The Committee's inquiry thus far has been greatly assisted by Mr Alistair Ross, the Director of the National Institute of Forensic Science in Victoria. Mr Ross and the National Institute are working towards adoption of uniform systems for dealing with DNA storage and use across Australian jurisdictions. Mr Ross appeared before the Committee on 15 April 1998.

Concerning the issue of how to establish a DNA database in Western Australia and other jurisdictions, Mr Ross noted that Australian jurisdictions should be able to learn from the difficulties encountered in the United Kingdom in establishing a national DNA database:

“[T]he decision was made in October 1994 to establish the database in the United Kingdom and it was to be up and running by April 1995. That caused enormous problems in training people. Birmingham was the original site for the database in the United Kingdom. There are 200 people employed just for database purposes. Scientists were recruited virtually directly from university without any experience in forensic science although they had experience in DNA profiling. Because of the lack of funds and the undue haste with which they were required to have the database up and running, they did face problems. The Association of Chief Police Officers estimated that in the first year, given the number of samples that they wanted tested, they needed about £5.6 m. They found that in existing budgets. One of the problems now starting to be overcome in the United Kingdom is the huge backlog of samples caused by the lack of funds and the haste with which the database was established.”⁷

The United States forensic database has to deal with the difficulties raised by the fact that criminal and police operations are run by a series of loosely connected Federal, State and local jurisdictions. Australia faces similar issues, as Mr Ross explains:

“In some instances the CODIS system established by the FBI is more akin [than the UK system] to the Australian system in that there is a number of different States, although the US has many more States than Australia. However, having different States means different legislation governing the type of samples and how they can be taken for the database. The US has a three tier database operating at county, state and national level. Samples can be added at county level and then fed into the state system and then to the national system.

The US has a different software package with some advantages and some disadvantages over the software package used in the United Kingdom. The CODIS software is excellent for development of statistics but it does not have a sample tracking system, which is obviously important if samples have to be taken off the database in respect of suspects. One of the early issues with the US database was that the data was not standardised on a DNA profiling system.

⁷ Mr Alistair Ross, transcript of evidence 15/4/1998, p29

Therefore, different States were using different methods to generate a DNA profile and they were not directly comparable. That has been overcome now and the authorities have opted to run with a DNA profiling system that looks at 13 different places on the DNA. The standard system Australia is considering looks at nine different places or loci and at present the United Kingdom system looks at six.”⁸

In establishing a national database, Mr Ross points out the importance of at the same time ensuring compatibility with international systems:

“[W]hen we were looking at a national system we were conscious of the importance of its comparability with other systems - the CODIS system, the New Zealand system and the UK system. The New Zealanders are using the same system which is used in the UK and which looks at six different places on the DNA, whereas ours will look at nine. Of that nine, five are common with the UK and New Zealand systems. There is reasonably good comparability internationally now. The European Network of Forensic Science Institutes is looking at a way to standardise a DNA profiling system. It appears that that will have a lot of commonality with the system we have chosen. The systems being established at the moment certainly lend themselves to international comparability for areas such as the drug trade.”⁹

The Committee proposes to meet with representatives of DNA laboratories in each of the jurisdictions which it visits, to investigate technical issues relating to the establishment and maintenance of DNA databases.

2.5 TAKING FORENSIC DNA SAMPLES

It is accepted that taking a forensic sample is an invasive process and there should be some restrictions on the circumstances in which a sample can be taken, whether it is a buccal swab from the inside of the cheek, a blood sample or another type. The Bill altered Western Australian law in this regard so as to broaden the powers of police to take samples, but provides only what has been called a “stop-gap” solution. Better information is needed on how taking of samples should be regulated so as to implement for Western Australia a regulatory regime which allows samples to be taken in an effective manner while protecting the civil liberties of Western Australians.

The Committee notes an important distinction between UK and US law in relation to taking of samples. The UK legislation allows the taking of samples where there is a reasonable suspicion that a person has committed an offence. Most US jurisdictions require that the person be convicted or at least charged with an offence before a sample can be taken.¹⁰

⁸ Mr Alistair Ross, transcript of evidence 15/4/1998, p30

⁹ Mr Alistair Ross, transcript of evidence 15/4/1998, p31

¹⁰ Victor Walter Weedn and John W Hicks, *The Unrealized Potential of DNA Testing*, National Institute of Justice June 1998 p6

Western Australia's approach currently is similar to the UK approach. However, further inquiry is needed as to the merits of the more restrictive approach taken in most US jurisdictions, and as to the degree of any problems posed for investigators by that approach.

The Committee asked Mr Ross whether it will be necessary for police to obtain an order or warrant from a magistrate to take a DNA sample:

“Mr ROSS: The recommendation I believe will come from the [national police] working party is that the decision on whether a sample can be taken will be made by a senior police officer or a magistrate. It will not necessarily be made by the policeman on the street, as the officer would need to relay to a senior police officer or magistrate the basis of the reasonable suspicion to take the sample.

Hon J.A. COWDELL: I asked before whether it would be like a search warrant in seeking permission from a magistrate and establishing on the form some grounds for the suspicion.

Mr ROSS: It is fair to say that the working party would rather have the decision made by either the senior police officer or a magistrate and not just a magistrate.”¹¹

The Committee proposes to meet with representatives of police forces, civil liberties organisations, legal profession organisations and legislators in each of the jurisdictions visited, to investigate how legislation should regulate the taking of a DNA sample.

2.6 ANALYSIS OF DNA SAMPLES

The Committee is not made up of scientists and does not propose to review in detail the processes by which DNA samples are analysed for use by investigative agencies. However, the Committee notes the importance of ensuring the reliability and integrity of the physical sample from the time it is taken, through the DNA testing and analysis to the time information is passed on the investigative agency.

The importance of being able to utilise different types of sample to obtain DNA information which can lead to identification of a victim or law-breaker is illustrated by case studies from both the United States and the United Kingdom. In many cases the physical sample available to the analyst will be small, examples being saliva from a sealed envelope in a blackmail case or seminal fluid in a sexual assault case.

The FBI refers to the techniques used to extract DNA information from physical samples as “DNA Evidence Extraction Procedures”. There are techniques for using hair, liquid blood or saliva, bone, fresh and old teeth among other body parts to extract DNA information. The Committee proposes to view the methods used for such extraction.

¹¹ Mr Alistair Ross, transcript of evidence 15/4/1998, p41

Weedn and Hicks, writing for the National Institute of Justice journal, contrast the uses which have been made of DNA testing in the U.S. and UK:

“In this country [the US], DNA testing has been conducted primarily in cases of sexual assault, from vaginal swabs and semen stains. By contrast, in England the majority of DNA database matches involve burglaries, with the evidence tested consisting of blood found at sites of forced entry.”¹²

One of the five sections of the FBI's Forensic Science Research and Training Centre is the Scientific Analysis Section. The Section deals with the storage and analysis of samples which yield DNA information.

The Committee proposes to meet with scientists and managers of scientific operations in each jurisdiction visited to investigate methods of analysis and methods for ensuring integrity of analysis.

2.7 EXTENT OF DNA DATABASE AND USE IN INVESTIGATIONS

DNA information can potentially be used in many cases where the investigating agency has a physical bodily sample relating to a crime and can take samples from other persons who may be involved in the crime, whether as victims or perpetrators. It stands to reason that the more extensive the DNA database, the greater will be its utility in investigating crime. Against this factor must be balanced the legitimate civil liberties and privacy concern that the DNA database should not be unnecessarily broad.

The FBI gives the following examples on its internet site of cases which have been solved using DNA profile matching.

- A badly decomposed body was discovered buried in a forest. It could not be identified by facial features or dental records. However a DNA profile was obtained from a sample of bone. The profile was matched against the database containing DNA information of missing persons and the victim was able to be identified.
- A search of the house of a suspected drug dealer was carried out by police. The police did not find evidence of drug dealing but found three broken teeth. Suspecting the dealer was involved in a recent murder, the teeth were analysed and compared to a DNA profile of the murder victim's mother. The comparison confirmed the teeth were those of the murder victim.
- Police searched the house of a person who matched the description of the perpetrator of an assault. The only evidence found in the house was a tiny amount of blood on the suspect's shoes, but the DNA profile of the blood matched that of the victim.

¹² Victor Walter Weedn and John W Hicks, *The Unrealized Potential of DNA Testing*, National Institute of Justice June 1998 p2

One of the five sections of the FBI's Forensic Science Research and Training Centre in Quantico, Virginia, is the Investigative Operations and Support Section.

Weedn and Hicks note that the United Kingdom has moved far more aggressively than the U.S. towards establishing a broad-based database. The key reason for the difference is that in the UK samples are taken upon arrest rather than, as in virtually all the States in the U.S., on conviction. The Committee proposes to compare the effectiveness of the two systems to determine how important it is that there be a broad power to take DNA samples.

In the course of his hearing Mr Ross discussed how police services in the United Kingdom use the forensic database:

“ From the outset, the United Kingdom determined to use the database to look at both serious and volume crime: Serious crime being homicide and assaults, and volume crime being house-breaks, car theft and so on. House-breaks affect most people in the community anyway. The database looks at both suspects and offenders. Some studies conducted in the United Kingdom before the database was established indicated that 8 per cent of the population was responsible for about two-thirds of crime. Therefore, being able to compare suspect and offender samples against unsolved crimes proved to be very successful. If a match was not made with a suspect's sample and the database, or the person was found not to be involved in the crime for which he or she was a suspect, the profile would be taken off the database.

The system relates to intra- and inter-jurisdictional crime. . . To use a Western Australian example, crimes committed in Perth and Albany may create no suspicion of connection with local police; however, the database can provide that link. It can provide a link between unsolved crime indicating a common offender, and it can provide a link between suspects, offenders and unsolved crimes, and links between suspects and offenders and other suspects and offenders. . .

It is important to realise that DNA profiling is not just "inclusionary", but also exclusionary. The database can exclude a suspect early in an investigation, which has implications for the time of police. . .

The model in the United Kingdom is appropriate for this country, with some minor changes . . . ”¹³

The Committee proposes to meet with investigative agencies in each jurisdiction to investigate how DNA information is obtained and used by them in the course of investigations. Of particular interest will be the methods used by police to ensure the

integrity of the information used, both in relation to samples taken in relation to the specific crime and the DNA profile obtained from the DNA database.

¹³ Mr Alistair Ross, transcript of evidence 15/4/1998, p28

2.8 STORAGE OF DNA SAMPLES AND DNA INFORMATION

Each of a DNA sample and the DNA profile it produces can potentially be stored indefinitely. The usefulness of the DNA database relies on ongoing availability of an extensive set of DNA profiles. At the same time, there is an argument that a person whose DNA sample is taken and whose profile is included on the DNA database should be entitled to have the information removed after a certain period. Another issue relating to storage of DNA samples and DNA Profiles is how to appropriately control access to the information over a long period.

The FBI's Forensic Science Research and Training Centre at Quantico, Virginia, includes the Forensic Science Systems Unit, responsible for storing DNA samples in accordance with the *DNA Identification Act of 1994*. The Act authorised the FBI to establish the Combined DNA Index System (CODIS) for law enforcement identification purposes. CODIS is a computer database of DNA profiles stored in three indexes: convicted offenders, unknown suspects and population samples (for statistical purposes only). Using CODIS, federal, state and local law enforcement agencies are able to search DNA samples relating to a criminal or other inquiry against those already in the database.

Mr Ross told the Committee that it is envisaged that information could be retained on the DNA database indefinitely:

*“It is safe to say that the recommendation from the [national police] working party will be that once a sample is on the database it will remain there forever. When I was working in forensic science questions arose after death as to whether a person was involved in a crime. Therefore, having a sample on the database even after death could prove useful.”*¹⁴

The Committee is aware of concerns about the potential for misuse of the information stored in a forensic database. Mr Ross discussed some of the measures which could be put in place to protect the integrity of DNA information:

“If we are to have this national database, those security issues must be resolved. In this country we have developed a national laboratory accreditation program that establishes guidelines for many issues in a forensic laboratory, ranging from management to occupational health and safety. One of the issues is security of storage. Other groups are also considering the issue. I mentioned the European Network of Forensic Science Institutes, and there is also the European Haemogenetic Society and a technical working group on DNA management in the United States. The group we deal with here is the National Association of Testing Authorities. We have worked with NATA to develop national standards for DNA profiling that take into account issues such as storage and security.

. . . We have had meetings with the Federal Privacy Commissioner and we are cognisant of the fact that the federal Privacy Act provides that a sample cannot be

¹⁴ Mr Alistair Ross, transcript of evidence 15/4/1998, p29

used for purposes other than those for which it was taken. . . It is important to allay fears. People believe that we can tell all sorts of things about them from their DNA, but the tests done to generate a profile do not look at genetically active regions of DNA.”¹⁵

A key feature of security in storage of information is that the information should be quarantined by some method from those, such as police investigators, who may be perceived to have an interest in the information. Mr Ross discusses the UK’s approach to this complex task:

“The CHAIRMAN: The United Kingdom has separated ownership and management, and security is one of the reasons for that.

Mr ROSS: Yes, that is right and I agree with it. Normal forensic procedures provide that the police have responsibility for and ownership of samples and data and that the forensic scientists manage the input of the data. Therefore, any input or any information - for example, removing the profile of a suspect - and the interpretation of results from the database would be the realm of the scientists and not the police.

Hon GIZ WATSON: Is there no storage of the actual original sample, only the numbers?

Mr ROSS: Only the numbers would be stored on the national database. The original material would be stored by the laboratory inputting the information.”¹⁶

In 1996 and 1997 the FBI’s Forensic Science Research and Training Centre was the subject of an inquiry by the US Department of Justice Inspector General. The inquiry was prompted by the claims of a whistleblower, concerning a number of alleged security breaches including tampering with samples in the course of DNA analysis.

By way of illustration of the kinds of security issues which must be considered by Western Australia, a statement by the FBI to a Congressional Committee in relation to the outcome of the investigation noted the following proposed changes to the operation of the Centre:

- oversight of operations by not only an internal investigatory body but also the Department of Justice Office of Professional Responsibility;
- seeking accreditation for the Centre by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board;

¹⁵ Mr Alistair Ross, transcript of evidence 15/4/1998, p31

¹⁶ Mr Alistair Ross, transcript of evidence 15/4/1998, p31

- in order to prevent alteration of auxiliary examiner findings by the principal examiner in each case, each examiner who analyses evidence must prepare and sign a separate report.¹⁷

The Committee proposes to meet in each jurisdiction with representatives of laboratories responsible for storing the DNA information, the regulators responsible for oversight of DNA databases and the investigating officers who seek access to the information, to determine what systems are appropriate for meeting the needs of the latter while maintaining the independence of the storage system.

2.9 USING DNA DATABASE INFORMATION AS EVIDENCE

At this stage forensic information sourced from the DNA database is not used as a matter of course in Western Australian courts as evidence, although there may be particular cases where forensic DNA information is accepted by a court as admissible.

Mr Ross does not envisage that Western Australia's DNA database will come to be used as evidence:

“What we are looking at with the database is whether there is an indication that two samples may have come from the same source. In other words, is it possible that a stain from an unsolved crime could have come from a suspect whose sample has been put onto the database. If they match in all nine systems there is compelling evidence that it was a common source. That is where the database finishes. It is only to be used as an investigative and intelligence tool. The information from the database indicating that the profile from the suspect matches the profile from the unsolved crime will be given to the police who will then conduct an investigation to see whether there is other evidence to corroborate that.

If that case went to court further testing would have to be done to corroborate those facts from the database. . . Recommendations from the working party include that database information not be used, that the sample will need further investigation for corroborative evidence and further testing to substantiate the match on the database. . . I think the database should be used as only an investigate and intelligence tool.”¹⁸

The situation in the U.S., in contrast, appears to be that DNA information is regularly used as evidence. In an article published in the National Institute of Justice journal, Weedn and Hicks make the comment that:

“Advances in technology have helped DNA testing to become an established part of criminal justice procedure. Despite early controversies and challenges by

¹⁷ James M Maddock, Deputy General Counsel and Donald W Thompson Jr, Acting Assistant Director Laboratory Division, 13/5/1997, Statement before the House Subcommittee on Crime of the Committee on the Judiciary, Washington DC

¹⁸ Mr Alistair Ross, transcript of evidence 15/4/1998, p35

defence attorneys, the admissibility of DNA test results in the courtroom has become routine. More than 200 published court opinions support this use, and DNA testing standards have been developed and promulgated. Last year there were more than 17,000 cases involving forensic DNA in this country alone. Questions about the validity and reliability of forensic DNA test methods have essentially been addressed.”¹⁹

At the same time, Weedn and Hicks comment that for DNA testing to reach its full potential, perceived limitations in procedures for testing DNA evidence and systems for collecting and accessing DNA information need to be overcome.

The FBI’s Forensic Science Research and Training Centre includes the Information and Evidence Management Unit. The Unit deals with the use of DNA information as evidence and the Committee proposes to meet with the Unit in order to establish the viability of using DNA information as evidence.

The key national body in the USA dealing with use of DNA testing as an investigative and evidentiary tool is the National Institute of Justice, a component of the Institute of Justice programs run by the U.S. Department of Justice in Washington DC.

The Committee proposes to meet with representatives of police forces, civil liberties organisations, legal profession organisations and legislators in each of the jurisdictions visited, to investigate how legislation should regulate the use of a DNA profile as evidence.

**Hon Bruce Donaldson MLC
Chairman**

Date:

¹⁹ Victor Walter Weedn and John W Hicks, *The Unrealized Potential of DNA Testing*, National Institute of Justice June 1998 p1

APPENDIX A: PROPOSED ITINERARY

FRIDAY 22 JANUARY 1999

Depart Perth for London, UK

SATURDAY 23 JANUARY 1999 TO WEDNESDAY 27 JANUARY 1999 - LONDON

Proposed meetings:

- The Western Australian Agent General
- Department of Haematology, St Bartholomew's, London
- Mr DG Gunn, QPM, MA (Cantab)
Chief Constable
Cambridgeshire Constabulary
- Mr Roger Ede, Secretary of the Criminal Law Committee
The Law Society of England and Wales
- Mr David Veness
Assistant Commissioner, Specialist Operations
Metropolitan Police Service
New Scotland Yard
- Mr Dick Fedorcio
Director of Public Affairs
Metropolitan Police Service
New Scotland Yard
- Dr Janet Thompson
Director General
The Forensic Science Service
- Dr David Werrett
Director of Research and DNA Services
The Forensic Science Service
- Forensic Science Service
London Laboratory
- Ms Clair Chaventre
National Council for Civil Liberties

THURSDAY 28 JANUARY TO FRIDAY 29 JANUARY - MAINZ, GERMANY

Arrive Mainz via Frankfurt, Germany.

Proposed meetings:

- European DNA Profiling Group
Mainz Representative
- Institute of Forensic Medicine
Mainz
- German Bar Association, Frankfurt

SATURDAY 30 JANUARY - WEDNESDAY 3 FEBRUARY - WASHINGTON

Arrive Washington DC, Virginia.

- Mr Randy Murch
Head of Forensic Department
Federal Bureau of Investigations
- Mr Jay V Millar
Chief of Forensic Science Systems Unit
Federal Bureau of Investigations
- American Bar Association
Criminal Justice Department
Committee on Rules of Criminal Procedure and Evidence
- American Bar Association
Criminal Justice Department
Committee on Rules of Criminal Science and Technology
- US Department of Justice:
 - Office of Information and Privacy
 - Office of Policy and Development
 - Office of Legislative Affairs
(Administration of the National Crime Prevention and Privacy Compact)

THURSDAY 4 FEBRUARY - FRIDAY 5 FEBRUARY 1999 - QUANTICO

Proposed meetings:

- FBI Laboratory's Forensic Science Research and Training Centre
 - Forensic Science Research Unit

- Scientific Analysis Section
- Investigative Operations and Support Section
- Forensic Science Systems Unit
- Trace Evidence Unit

SATURDAY 6 FEBRUARY 1999

Depart from Washington DC

SUNDAY 7 FEBRUARY 1999

Arrive Perth

MEMBERSHIP

The Hons Bruce Donaldson, Giz Watson, Derrick Tomlinson, Bill Stretch and John Cowdell will be travelling.

The Committee will be assisted by one Advisory Research Officer and one Committee Clerk.

The trip is endorsed by all members of the Committee.

APPENDIX B: COSTINGS

	\$
Perth - London - Washington - Perth (6999 x 7) (Berlin inclusive)	48 993.00
Meals, Accommodation and other expenses (360 x 7 x 14)	35 280.00

TOTAL	84 273.00