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Payment of Section 94 Contributions by Instalments (under special circumstances)

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1. PURPOSE

To enable the payment of section 94 contributions by instalment under certain circumstances.

2. STATEMENT

Council resolved to permit the payment of section 94 contributions by instalments over 5 years when special circumstances can be demonstrated for tenants or businesses operating in the Shoalhaven Local Government Area. This is in addition to the option of deferred payment of section 94 contributions already allowed for in Council's Contributions Plan.

3. PROVISIONS

Payment of section 94 contributions by instalment is only available to tenants or businesses operating in the Shoalhaven Local Government Area. Payment by instalments over a maximum of 5 years is possible in special circumstances.

Requests for payment of section 94 contributions by instalments are by application to Council. The application is to include the reasons why special circumstances apply, and will be determined at Council's discretion. Special circumstances will relate to the financial circumstances of the applicant, the amount of the contribution, the works that the contribution is applied to and its location and for tenants, the nature and duration of the tenancy.

Payment by instalments will not be considered when the works projects to which the contributions apply are essential infrastructure, or relate to public safety or health, or the amount of contributions is less than \$5,000.

Payments will be subject to an interest charge equivalent to that applied to overdue rates and an administration charge equivalent to the bank guarantee lodgement fee for subdivision related matters, as shown in Council's Fees & Charges.

The full amount of contributions plus interest is to be secured by bank guarantee, to be accepted by Council before release of plans or construction certificate.

The administration charge is to be paid at the time of lodgement of the bank guarantee.

4. IMPLEMENTATION

Because the policy applies to specific development and subdivision applications, implementation of this policy is the responsibility of Development & Environmental Services Group. The following implementation procedures will apply:

- Calculations for the amount of the Bank Guarantee plus interest and the instalment schedule are to be checked and signed off by Finance Section (refer to Financial Accountant) prior to entering an agreement with the developer.
- It is usual practice not to have an expiry date on the Bank Guarantee and it is to be unconditional. If an expiry date is included it must be at least 1 month after the due date for payment of the contribution. Under no circumstances should the Bank Guarantee have an expiry date on or before the due date.
- The Bank Guarantee for the correct amount (including interest) plus lodgement fee is to be received and confirmed as complying with Council's requirements prior to the release of linen plans or construction certificate (refer to Financial Accountant).
- The original Bank Guarantee is to be forwarded to Finance Section (Financial Accountant) with the SF or DA file so that it can be checked, registered as a legal document and placed in the safe. The file must accompany the original Bank Guarantee so that the legal document number can be noted on the front of the file and a copy of the Bank Guarantee placed on the file.
- When all the amounts owing (including interest) have been paid, a memo is to be sent to the Financial Accountant requesting that the Bank Guarantee be released.
- If amounts owing (including interest) have not been paid by the due date, Development & Environmental Services Group should send a letter to the applicant warning that the Bank Guarantee will be called up if payment is not made by a specific date (within 1 week).
- If amounts owing (including interest) have still not been paid despite the warning letter, a memo is to be sent to the Financial Accountant requesting that the Bank Guarantee be called up. This must be done at least 2 weeks before any expiry date on the Bank Guarantee.
- Although Council has agreed to payment by instalments in certain circumstances, it is preferred that a Bank Guarantee for the full amount due (including interest) be held by Council until all the contributions plus interest due have been paid.
- It is not preferred that the Bank Guarantee amount be reduced progressively (for example, following part payment). Any reduction to the Bank Guarantee amount is to be requested via a memo to the Financial Accountant who will then contact the bank. It is usual practice for the bank to replace an existing Bank Guarantee with a new Bank Guarantee when the amount is reduced.

5. REVIEW

This policy will be reviewed within 12 months of election of a new Council.

6. APPLICATION OF ESD PRINCIPLES

None applicable.



Voluntary Planning Agreements

Policy Number: POL08/417

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1. INTRODUCTION

1.1 This Policy sets out Shoalhaven City Council's policy and procedures relating to Planning Agreements under the *Environmental Planning and Assessment Act 1979*.

1.2 This Policy was adopted by resolution of the Council on 25th March, 2008.

1.3 In this Policy, the following terminology is used:

Act means the *Environmental Planning and Assessment Act 1979*;

development application has the same meaning as in the Act;

development contribution means the kind of provision made by a developer under a Planning Agreement, being a monetary contribution, the dedication of land free of cost or the provision of a material public benefit;

instrument change means a change to an environmental planning instrument to enable a development application to be made to carry out development the subject of a Planning Agreement;

planning benefit means a development contribution that confers a net public benefit, that is, a benefit that exceeds the benefit derived from measures that would address the impacts of particular development on surrounding land or the wider community;

public facilities means public infrastructure, facilities, amenities and services;

planning obligation means an obligation imposed by a Planning Agreement on a developer requiring the developer to make a development contribution;

Practice Note means the *Practice Note on Planning Agreements* published by the Department of Infrastructure Planning and Natural Resources (July 2005);

public includes a section of the public;

public benefit is the benefit enjoyed by the public as a consequence of a development contribution;

Regulation means the *Environmental Planning and Assessment Regulation 2000*;

surplus value means the value of the developer's provision under a Planning Agreement less the sum of the value of public works required to be carried out by the developer under a condition imposed under s80A(1) of the Act and the value of development contributions that are or could have been required to be made under s94 or s94A of the Act in respect of the development the subject of the agreement.

1.4 The Purposes of this Policy are:

- (a) To establish a framework governing the use of Planning Agreements by the Council;
- (b) To ensure that the framework so established is efficient, fair, transparent and accountable;

- (c) To enhance planning flexibility in the Council's area through the use of planning agreements,
- (d) To enhance the range and extent of development contributions made by development towards public facilities in the Council's area;
- (e) To set out the Council's specific policies on the use of Planning Agreements; and
- (f) To set out procedures relating to the use of Planning Agreements within the Council's area;

1.5 The Council's Planning Agreements framework consists of the following:

- (a) The provisions of Subdivision 2 of Division 6 of Part 4 of the Act;
- (b) The provisions of Division 1A of Part 4 of the Regulation; and
- (c) This Policy.

1.6 This Policy is not legally binding. However, it is intended that the Council and all persons dealing with the Council in relation to Planning Agreements will follow this Policy to the fullest extent possible.

1.7 It is intended that this Policy will be periodically updated. The up-dates may cover additional matters to those covered in this Policy or provide more detailed information or guidance on specific matters covered in this Policy.

2. POLICY ON THE USE OF PLANNING AGREEMENTS

Council's Strategic Objectives for the use of Planning Agreements

2.1 The Council's strategic objectives with respect to the use of Planning Agreements include:

- (a) To provide an enhanced and more flexible development contributions system for the Council, which achieves net planning benefits from development wherever possible and appropriate;
 - (b) To adopt innovative approaches to the provision of infrastructure that reflects a balance of environmental standards, community expectations and funding priorities;
 - (c) To ensure that developers make appropriate development contributions towards the cost of the provision and management of public facilities within the Council's area;
 - (d) To supplement or replace, as appropriate, the application of s94 and s94A of the Act to development;
3. To give all stakeholders in development greater involvement in determining the type, standard and location of public facilities and other public benefits;
4. To allow the community, through the public participation process under the Act, to gain an understanding as to the redistribution of the costs and benefits of development in order to realise community preferences for the provision of public benefits; and

5. To increase certainty for the community, developers and Council in respect to infrastructure and development outcomes.

Fundamental Principles Governing the Use of Planning Agreements

2.2 The Council's use of Planning Agreements will be governed by the following principles:

- (a) Planning decisions may not be bought or sold through Planning Agreements;
- (b) Development that is unacceptable on planning grounds will not be permitted because of planning benefits offered by developers that do not make the development acceptable in planning terms;
- (c) The Council will not allow Planning Agreements to improperly fetter the exercise of its functions under the Act, Regulation or any other Act or law;
- (d) The Council will not use Planning Agreements for any purpose other than a proper planning purpose;
- (e) The Council will not seek benefits under a Planning Agreement that are unrelated to particular development;
- (f) The Council will not allow the interests of individuals or interest groups to outweigh the public interest when considering a proposed Planning Agreement;
- (g) The Council will not improperly rely on its statutory position in order to extract unreasonable public benefits from developers under Planning Agreements; and
- (h) Where the Council has a commercial stake in development the subject of an agreement, it will take appropriate steps to ensure that it avoids a conflict of interest between its role as a planning authority and its interest in the development.

Circumstances in Which Council Will Consider Negotiating a Planning Agreement

2.3 The Council, in its complete discretion, may negotiate a Planning Agreement with a developer in connection with any proposed application by the developer for an instrument change or for development consent relating to any land in the Council's area.

Specific Purposes of Planning Agreements

2.4 The Council may consider negotiating a Planning Agreement with a developer to:

- (a) Compensate for the loss of, or damage to, a public amenity, service, resource or asset caused by the development through its replacement, substitution, repair or regeneration;
- (b) Meet the demands created by the development for new public infrastructure, amenities and services;
- (c) Address a deficiency in the existing provision of public facilities in the Council's area;
- (d) Achieve recurrent funding in respect of public facilities;

- (e) Prescribe inclusions in the development that meet specific planning objectives of the Council;
- (f) Monitor the planning impacts of development; and
- (g) Secure planning benefits for the wider community.

Acceptability Test to be Applied to all Planning Agreements

2.5 The Council will apply the following test in order to assess the desirability of the possible outcome of a proposed Planning Agreement:

- (a) Is the Planning Agreement directed towards a proper or legitimate planning purpose having regard to its statutory planning controls and other adopted planning policies and the circumstances of the case?
- (b) Does the Planning Agreement result in a public benefit?
- (c) Does the Planning Agreement provide for a reasonable means of achieving the relevant purpose?
- (d) Can the Planning Agreement be taken into consideration in the assessment of the relevant rezoning application or development application?
- (e) Will the Planning Agreement produce outcomes that meet the general values and expectations of the community and protect the overall public interest?
- (f) Does the Planning Agreement promote the Council's strategic objectives in relation to the use of Planning Agreements?
- (g) Does the Planning Agreement conform to the fundamental principles governing the Councils use of Planning Agreements?
- (h) Are there any relevant circumstances that may operate to preclude the Council from entering into the proposed Planning Agreement?

Consideration of Planning Agreements in Relation to Instrument Changes and Development Applications

2.6 When exercising its functions under the Act in relation to an application by a developer for an instrument change or a development consent to which a proposed Planning Agreement relates, the Council will consider to the fullest extent permitted by law:

- (a) Whether the proposed Planning Agreement is relevant to the application and hence may be considered in connection with the application, and
- (b) If so, the proper planning weight to be given to the proposed Planning Agreement.

Application of s94 and s94A to Development to Which a Planning Agreement Relates

2.7 The Council has no general policy on whether a Planning Agreement should exclude the application of s94 or s94A of the Act to development to which the agreement relates. This is a

matter for negotiation between the Council and a developer having regard to the particular circumstances of the case.

- 2.8 However, where the application of s94 of the Act to development is not excluded by a Planning Agreement, the Council will generally not agree to a provision allowing benefits under the agreement to be taken into consideration in determining a development contribution under section 94.

Application of SEPP 1 to Development to Which a Planning Agreement relates

- 2.9 The Council will not agree to a provision in a Planning Agreement requiring the benefit provided by the developer under the agreement to be used to justify a dispensation with applicable development standards under *State Environmental Planning Policy No.1 – Development Standards* in relation to development unless the Council is of the opinion that the subject matter of the proposed Planning Agreement addresses the matters specifically required to be addressed under that Policy in relation to the dispensation sought.

Form of Development Contributions Under a Planning Agreement

- 2.10 The form of a development contribution to be made under a proposed Planning Agreement will be determined by the particulars of the Planning Agreement having regard to the instrument change or development application to which the proposed Planning Agreement relates.

Standard Charges

- 2.11 Wherever possible, the Council will seek to standardise development contributions sought under Planning Agreements in order to streamline negotiations and provide fairness, predictability and certainty for developers. This, however, does not prevent public benefits being negotiated on a case by case basis, particularly where planning benefits are also involved.

Recurrent Charges

- 2.12 The Council may request developers, through a Planning Agreement, to make development contributions towards the recurrent costs of public facilities. Where the public facility primarily serves the development to which the Planning Agreement relates or neighbouring development, the arrangement for recurrent funding may be in perpetuity. However, where the public facility or public benefit is intended to serve the wider community, the Planning Agreement will only require the developer to make contributions towards the recurrent costs of the facility until a public revenue stream is established to support the on-going costs of the facility.

Pooling of Development Contributions

- 2.13 Where a proposed Planning Agreement provides for a monetary contribution by the developer, the Council may seek to include a provision permitting money paid under the agreement to be pooled with money paid under other Planning Agreements or by other developer contributions and applied progressively for the different purposes under those agreements or contributions, subject to the specific requirements of the relevant agreements. Pooling may be appropriate to allow public benefits, particularly essential infrastructure, to be provided in a fair, equitable and timely way.

Methodology for Valuing Public Benefits Under a Planning Agreement

- 2.14 Unless otherwise agreed, where the benefit under a Planning Agreement is the provision of land for a public purpose, the Council will generally seek to value the benefit on the basis of the estimated amount of compensation to which the Developer would be entitled under the *Land Acquisition (Just Terms Compensation) Act 1991* upon the compulsory acquisition of the land.
- 2.15 Unless otherwise agreed: Where the benefit under a Planning Agreement is the carrying out of works for a public purpose, the Council will generally seek to value the benefit on the basis of the estimated value of the completed works determined using the method that would be ordinarily adopted by a quantity surveyor.

Credits and Refunds

- 2.16 The Council will not agree to a Planning Agreement providing for the surplus value under a Planning Agreement being refunded to the developer or offset against development contributions required to be made by the developer in respect of other development in the Council's area.

Time When Developer's Obligations Arise Under a Planning Agreement

- 2.17 The Council will generally require a Planning Agreement to provide that the developer's obligations under the agreement take effect when the first development consent operates in respect of development that is the subject of the agreement.

Implementation

- 2.18 The Council will require a Planning Agreement to provide for matters that relate to implementation of the proposed works, such as:
- (a) The times at which and, if relevant, the period during which, the developer is to make provision under the Planning Agreement;
 - (b) The design, technical specification and standard of any work required by the Planning Agreement to be undertaken by the developer;
 - (c) The manner in which a work is to be handed over to the Council; and
 - (d) The manner in which a material public benefit is to be made available for its public purpose in accordance with the Planning Agreement.

Monitoring and Review of a Planning Agreement

- 2.19 The Council will continuously monitor the performance of the developer's obligations under a Planning Agreement.
- 2.20 The Council will require the Planning Agreement to contain a provision establishing a mechanism under which the performance and milestones contained under the Planning Agreement are periodically reviewed with the involvement of all parties.

- 2.21 The Council may appoint an officer to supervise the implementation of the works that are the subject of the Planning Agreement.

Modification or Discharge of the Developer's Obligations Under a Planning Agreement

- 2.22 The Council may agree to a provision in a Planning Agreement permitting the developer's obligations under the agreement to be modified or discharged where the modification or discharge is linked to the following circumstances:
- (a) The developer's obligations have been fully carried in accordance with the agreement;
 - (b) The developer has assigned the developer's interest under the agreement in accordance with its terms and the assignee has become bound to the Council to perform the developer's obligations under the agreement;
 - (c) The development consent to which the agreement relates has lapsed;
 - (d) The performance of the Planning Agreement has been frustrated by an event beyond the control of the parties;
 - (e) Other material changes affecting the operation of the Planning Agreement have occurred; and
 - (f) The Council and the developer otherwise agree to the modification or discharge of the agreement.
- 2.23 Such a provision will require the modification or revocation of the Planning Agreement in accordance with the Act and Regulation.

Assignment and Dealings by the Developer

- 2.24 The Council will require every Planning Agreement to provide that the Developer may not assign its rights or obligations under the agreement nor have any dealing in relation to the land the subject of the agreement unless, in addition to any other requirements of the agreement:
- (a) The Council has given its consent to the proposed assignment or dealing;
 - (b) The developer has, at no cost to the Council, first procured the execution by the person with whom it is dealing of all necessary documents in favour of the Council by which that person agrees to be bound by the agreement as if they were a party to the original agreement, and
 - (c) The developer is not in breach of the Agreement.

Provision of Security Under a Planning Agreement

- 2.25 The Council will generally require a Planning Agreement to make provision for security by the developer of the developer's obligations under the agreement. The form of security will generally be the unconditional bank guarantee from an Australian Bank in favour of the Council to the full value of the Developer's provision under the Agreement and on terms otherwise acceptable to the Council.

Preparation of the Planning Agreement

- 2.26 The Council will ordinarily prepare a Planning Agreement relating to a particular application for a planning instrument change or development application.
- 2.27 In the interests of process efficiency, the Council uses an approved standard form of Planning Agreement on which every Planning Agreement is based. That document reflects the policies and procedures set out in this document.

Council's Costs of Negotiating, Entering Into, Monitoring and Enforcing a Planning Agreement

- 2.28 The Council will generally require a Planning Agreement to make provision for payment by the developer of the Council's costs of and incidental to:
- (a) Negotiating, preparing and entering into the agreement;
 - (b) Enforcing the agreement.
- 2.29 In particular cases, the Council may require the Planning Agreement to make provision for a development contribution by the developer towards the on-going administration of the agreement.

Notations on Certificates Under s149(5) of the Act

- 2.30 The Council will generally require a Planning Agreement to contain an acknowledgement by the developer that the Council may, in its absolute discretion, make a notation under s149(5) of the Act about a Planning Agreement on any certificate issued under s149(2) of the Act relating to the land the subject of the agreement or any other land.

Registration of Planning Agreements

- 2.31 The Council will generally require a Planning Agreement to contain a provision requiring the developer to agree to registration of the agreement pursuant to s93H of the Act if the requirements of that section are satisfied.

Dispute Resolution

- 2.32 The Council will generally require a Planning Agreement to provide for mediation of disputes between the parties to the agreement before the parties may exercise any other legal rights in relation to the dispute.

Hand-over of works

- 2.33 The Council will generally not accept the hand-over of a public work carried out under a Planning Agreement unless the developer furnishes to the Council a certificate to the effect that the work has been carried out and completed in accordance with the agreement and any applicable development consent (which certificate may, at the Council's discretion, be a final occupation certificate, compliance certificate or a subdivision certificate) and, following the issue of such a certificate to the Council, the work is also certified as complete by an appropriate Council officer.

- 2.34 The Council will also require the agreement to provide for a defects liability period during which any defects must be rectified at the developer's expense.

Management of Land or Works after Hand-Over

- 2.35 If a Planning Agreement provides for the developer, at the developers cost, to manage or maintain land that has been dedicated to the Council or works that have been handed-over to the Council, the Council may require the parties to enter into a separate implementation agreement in that regard (see 2.18).
- 2.36 The failure of the parties to reach agreement in relation to management and maintenance of the land or works may be dealt with under the dispute resolution provisions of the Planning Agreement.

Public use of Privately-Owned Facilities

- 2.37 If a Planning Agreement provides for the developer to make a privately-owned facility available for public use, the Council may require the parties to enter into a separate agreement in that regard.
- 2.38 The failure of the parties to reach agreement in relation to management and maintenance of the land or works may be dealt with under the dispute resolution provisions of the Planning Agreement.

3. PROCEDURES RELATING TO THE USE OF PLANNING AGREEMENTS

Council's Negotiation System

- 3.1 The Councils negotiation system for Planning Agreements aims to be efficient, predictable, transparent and accountable.
- 3.2 The system seeks to ensure that the final negotiation of Planning Agreements runs in parallel with applications for instrument changes or development applications.
- 3.3 The system is based on principles of fairness, co-operation, full disclosure, early warning, and agreed working practices and timetables.

When Should a Planning Agreement be Negotiated?

- 3.4 The Council will publicly notify a Planning Agreement as part of and in the same manner as and contemporaneously with the application for the planning instrument change or the development application to which it relates.
- 3.5 The Planning Agreement must therefore be negotiated and documented before it is publicly notified as required by the Act and Regulation.
- 3.6 The Council prefers that a Planning Agreement is negotiated before lodgement of the relevant application and that it accompanies the application on lodgement.

Who Will Negotiate a Planning Agreement on Behalf of the Council?

- 3.7 A Council officer or officers with appropriate delegated authority from the General Manager will negotiate a Planning Agreement on behalf of the Council and where necessary the Planning Agreement will be reported to Council for endorsement.

Separation of the Councils Planning Assessment and Negotiation Roles

- 3.8 The Council will, in all cases, ensure that the person who undertakes the assessment of the application to which a Planning Agreement relates for the purpose of determining the application or reporting on it to the Council is not the same person or a subordinate of the person who negotiated the Planning Agreement on behalf of the Council.

Involvement of Independent Third Parties in the Negotiation Process

- 3.9 The Council will encourage the appointment of an independent person to facilitate or otherwise participate in the negotiations or aspects of it, particularly where:
- (a) An independent assessment of a proposed instrument change or development application is necessary or desirable;
 - (b) Factual information requires validation in the course of negotiations;
 - (c) Sensitive financial or other confidential information must be verified or established in the course of negotiations;
 - (d) Facilitation of complex negotiations are required in relation to large projects or where numerous parties or stakeholders are involved; and
 - (e) Dispute resolution is required under a Planning Agreement.

Key steps in the Negotiation Process

- 3.10 The negotiation of a Planning Agreement will generally involve the following key steps:
- (a) Before lodgement of the relevant application by the developer, the parties will decide whether to negotiate a Planning Agreement;
 - (b) The parties will then appoint a person to represent them in the negotiations;
 - (c) The parties will also appoint a third person to attend and take minutes of all negotiations;
 - (d) The parties will also decide whether to appoint an independent person to facilitate or otherwise participate in the negotiations or aspects of it;
 - (e) The parties will also agree on a timetable for negotiations and the protocols and work practices governing their negotiations;
 - (f) The parties will then identify the key issues for negotiation and undertake the negotiations;

- (g) If agreement is reached, the Council will prepare the proposed Planning Agreement and provide a copy of it to the developer;
- (h) The parties will undertake further negotiation on the specific terms of the proposed Planning Agreement;
- (i) Once agreement is reached on the terms of the proposed Planning Agreement, the developer will be required to execute the agreement;
- (j) The developer may then make the relevant application to the Council accompanied by a copy of the proposed agreement; and
- (k) The parties may be required to undertake further negotiations and, hence, a number of the above steps, as a result of the public notification and inspection of the Planning Agreement or its formal consideration by the Council in connection with the relevant application, may need to be repeated including publicly renotifying the agreement.

Public Notification of Planning Agreements

- 3.11 A Planning Agreement must be publicly notified and available for public inspection for a minimum period of 28 days.
- 3.12 The Council will publicly notify the Planning Agreement as part of and in the same manner as and contemporaneously with the development application or the planning instrument change to which it relates.
- 3.13 Where the application to which a Planning Agreement relates is required by or under the Act or Regulation to be publicly notified and available for public inspection for a period exceeding 28 days, the Council will publicly notify the Planning Agreement and make it available for public inspection for that longer period.
- 3.14 Where the application to which a Planning Agreement relates is permitted by or under the Act or Regulation to be publicly notified and available for public inspection for a period of less than 28 days, the Council will publicly notify the application and make it available for public inspection for a minimum period of 28 days.
- 3.15 The Council will publicly re-notify and make available for public inspection a proposed Planning Agreement and the application to which it relates if, in the Council's opinion, a material change is made to the terms of the agreement or the application after it has been previously publicly notified and inspected. Such a change may arise as a consequence of public submissions made in respect of the previous public notification and inspection of the agreement or the application, or their formal consideration by the Council, or for any other reason.

When is a Planning Agreement Required to be Entered Into?

- 3.16 A Planning Agreement is entered into when it is signed by all of the parties.
- 3.17 A Planning Agreement can be entered into at any time after the agreement is publicly notified in accordance with the Act and Regulation.

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- 3.18 The Council will usually require a Planning Agreement to be entered into as a condition of granting development consent to the development to which the agreement relates.

REPORT OF GENERAL MANAGER**POLICY AND PLANNING COMMITTEE****13 FEBRUARY 2007****STRATEGIC PLANNING****1. Section 94 Contributions Plan - Policy for Contributions from Retirement Villages and Senior Living Developments**
File 1361**Reason for Report**

To create a policy for the application of Council's Section 94 Contributions Plan to various types of retirement and aged care residential facilities.

Background

On 31st March 2004, State Environmental Planning Policy (SEPP) No. 5 (Housing for Older People or People with a Disability) was repealed with SEPP (Seniors Living) 2004. On the same date, the then Minister for Infrastructure & Planning issued a direction under Section 94E of the Environmental Planning & Assessment Act relating to the ability of Council to require developer contributions from developments defined under SEPP (Seniors Living) 2004.

The Ministerial direction allows Council to require Section 94 contributions from Seniors Living developments except for those provided by the Department of Housing, a local government housing provider or a community housing provider. Previously, all SEPP 5 developments were exempt from making contributions. Note that not all applications for development of retirement villages and aged care facilities are made under SEPP (Seniors Living).

This change has created a situation where some developments can be required to make contributions as conditions of development consent, whereas others cannot. Furthermore, for developments where contributions are required, there are grounds to consider exemption for certain projects in the Contributions Plan (for example, facilities not normally required by aged persons such as certain sporting facilities and services to children). It is therefore recommended that a policy be adopted to manage any uncertainty associated with these changes, and to provide guidance to the assessment of development applications.

SEPP Seniors Living 2004

- # SEPP (Seniors Living) 2004 applies to residential development for people aged 55 years and over and people with a disability. The various types of residential facilities (residential care facility, hostel, self-contained dwellings, or combinations of these) are defined in the SEPP and summarised in Attachment 1. Whilst the SEPP provides certain directions and concessions for developments made under the SEPP, not all applications for seniors living are made this way. However, the definitions remain relevant for assessment purposes.

The Ministerial direction allows Council to require Section 94 contributions as a condition of consent for SEPP (Seniors Living) development applications, with the exception of development by the Department of Housing, local government and community housing providers.

Definition of Community Housing Provider

SEPP (Seniors Living) 2004 contains the following interpretation:

“local government or community housing provider means:

- (a) a local government organisation, or a **not for profit organisation**, that is a **direct provider of housing to tenants receiving government housing subsidies**, or*
- (b) an organisation approved by the Minister”.*

Consequently, there are two criteria (highlighted above) that an organisation must normally meet to be defined as a community housing provider. It is recommended that an organisation claiming status as a community housing provider must include evidence of such as part of the development application and assessment process.

Application of Section 94 Contributions Plan

The following guidelines are suggested for different types of residential development, whether made under SEPP (Seniors Living) 2004 or not. As a general rule, the type of development determines the demand for facilities.

Council’s Contributions Plan is based on some 270 capital works projects, grouped into various types of works. For any particular development application, the list of projects that will require a contribution is dependant on the location of the development, and is created at the time of application or by enquiry by the applicant. The amount of the contribution is set according to the project list and the scale of the development.

For most applications, the scale of the development (as measured by the number of Equivalent Tenements, ET) can be estimated in the same way as other medium density residential development. Consequently, a single bed unit would be 0.4 ET, a 2 bedroom unit 0.6 ET and a 3 bedroom unit 0.8 ET, where a single detached dwelling is 1.0 ET.

Community Housing Providers

Consistent with the Ministerial direction, residential development by a community housing provider is exempt from section 94 contributions. It is recommended that developers make application for exemption as part of the development application process, and include evidence that the organisation meets the criteria for this definition. For example, this could include an endorsement by the Australian Tax Office of their status as an income tax exempt charity, together with evidence that the facilities are constructed for residents that receive a Government housing subsidy (for example, licences or agreements with Government agencies).

Self-Care Dwellings, including serviced Self-Care Housing, and Retirement Villages (other than by community housing providers)

For this type of development, where residents will generate demand for public infrastructure in much the same way as conventional medium density residential development, it is recommended that the full contribution be applied to the following types of works projects:

- Stormwater Drainage (labelled as DRAI projects in the Contributions Plan)

- Fire and Emergency Services (FIRE)
- Roads and Traffic Facilities (ROAD)
- Passive Open Space (OREC)
- Plan Administration and Management (MGMT)

In regard to Community Facilities projects (CFAC), it is recommended that contributions be required for all projects other than those associated with youth, children, family or mobile services. However, contributions would be expected for Libraries, local Community Centres, the Shoalhaven Multipurpose Cultural & Convention Centre, Shoalhaven Arts Centre, etc., which provide services to seniors. If an application includes an on-site community facility, then a further exemption to a local community facility in the contributions plan could be considered on its merits. The Shoalhaven Library at Nowra acts as a central coordinator of all branch libraries and provides a mobile service, so a contribution is expected for this project.

It is recommended that a 50% discount be applied to Active Recreation (AREC) projects in recognition of the reduced demand from aged persons for facilities associated with contact sports. However, the Contributions Plan includes facilities for non-contact sports such as tennis, likely to be used by active seniors.

Residential Care Facilities and Hostels requiring 24 hour on-site management (other than by community housing providers)

It is recommended that the full contribution be required for the following types of works projects:

- Stormwater Drainage (DRAI)
- Fire and Emergency Services (FIRE)
- Roads and Traffic Facilities (ROAD)
- Passive Open Space (OREC)
- Plan Administration and Management (MGMT)

It is recommended that Community Facilities projects (CFAC) be considered in the same way as for self-care housing, but that no contribution be required for Active Recreation (AREC) facilities.

Nursing Homes (other than community housing providers)

It is recommended that full contributions be required for the following projects only, in recognition of the reduced needs of nursing home residents for public infrastructure:

- Stormwater Drainage (DRAI)
- Fire and Emergency Services (FIRE)
- Roads and Traffic Facilities (ROAD)
- Plan administration and management (MGMT)

- Libraries (part of CFAC)

Application for Exemption by Illawarra Retirement Trust

An application for exemption as a community housing provider was received from Illawarra Retirement Trust (IRT) on 29th January 2007, in respect of Stage 6 of the Greenwood Gardens development in Brereton Street, Nowra (DA06/1273). IRT have provided copies of the Australian Tax Office endorsement of the status of the organisation as an income tax exempt charity. They have also provided copies of correspondence between IRT and the Commonwealth Department of Health and Ageing confirming that Department's approval for 28 subsidised low-care places.

It is therefore recommended that IRT be considered a community housing provider of Stage 6 of the Greenwood Gardens development and be exempt from Section 94 contributions for the consent over DA06/1273, and that any contributions paid as a condition of that consent be refunded.

RECOMMENDED that in relation to Section 94 Contributions Plan - Policy for Contributions from Retirement Villages and Seniors Living Developments:

- a) Council incorporate the provisions as detailed and recommended in this report into a draft Policy;**
- b) Community consultation be undertaken by public advertisement for a period of 30 days;**
- c) The draft Policy be placed on Council's internet site with easy links to make comments electronically;**
- d) The draft Policy be forwarded to all Principal Consultative Bodies;**
- e) A further report be made to Council following community consultation; and**
- f) Illawarra Retirement Trust be considered a community housing provider of Stage 6 of the Greenwood Gardens development, Brereton Street, Nowra, and be exempt from Section 94 contributions for the consent over DA06/1273, and that any contributions paid as a condition of that consent be refunded.**

ULLADULLA TRAFFIC STRATEGY – BACKGROUND & FURTHER INFORMATION

Background

In the five year period 1991-1996 increasing traffic congestion, increasing crash rates, and emerging pedestrian safety issues in the Ulladulla CBD led to overwhelming community support for action to be taken.

Following extensive consultation, Council, the RTA, and the community agreed that an interim solution was required in any event to address the problems prior to provision of an Ulladulla Bypass, which was recognized as being some time away due to need for route selection study, environmental impact study, design and land acquisition processes which could defer the project for some years even if funds were available.

Full details in relation to the background to the Ulladulla traffic strategy are documented on File 77/3064 (Parts 1-4). The majority of information relating to the Interim traffic strategy can be found on Part 2 of that file however; this report contains a summary of the more pertinent points, key events, and issues for Council's information in considering further direction to be taken at this time.

Interim Strategy Required Prior to Bypass

The alternative RTA option presented to Council at the time was for construction of a 4 lane Highway through Ulladulla CBD to provide sufficient traffic capacity, with provision of traffic signals at most of the CBD intersections along the Highway to aid safe pedestrian crossings.

The RTA option raised significant concerns in the community. The main concerns being;

- Impacts on pedestrian safety; and
- Concerns that if a 4 lane Highway was built through Ulladulla CBD, Ulladulla CBD would never have a Bypass

Numerous submissions were received from the community in relation to the RTA's four lane proposal, several meetings were held with RTA staff, a number of planning focus workshops were held with key stakeholder groups, and a public meeting was also held to discuss the issues and obtain feedback from the community.

The alternative (Interim) strategy ultimately agreed with RTA involved maintaining the Princes Highway as a two lane road through Ulladulla CBD and the temporary use of St Vincent Street as a traffic relief route.

Whilst the alternative strategy was objected to by the majority of St Vincent Street residents, overall the strategy had wide spread community support as a necessary interim strategy, and Council subsequently made a significant decision to agree to share traffic between the Highway and St Vincent Street as part of an interim strategy to address current traffic and pedestrian issues, prior to the construction of the Ulladulla Bypass.

Because the problems on the Highway were an RTA responsibility, RTA agreed to fund all elements of the alternative strategy on the Princes Highway at 100% RTA cost. In the agreement, RTA only required Council to provide the funds required to improve the level of landscaping treatments planned for the proposed roundabouts on the Princes Highway (St Vincent Street and Golf Avenue, and Deering Street) and proposed median on the Highway between Green Street and Wason Street.

RTA also required Council to undertake pavement strengthening, pavement widening, intersection and pedestrian improvement works along the St Vincent Street route however with considerable government financial assistance.

At the time, RTA never requested that Council prepare a section 94 plan for recoupment of any costs associated with implementation of the interim strategy.

The adopted Ulladulla CBD Traffic Strategy (1996 agreement with RTA)

(Reference: 1996 Strategy Council Ordinary Min96.1971 270896 (File 77/3064))

On Tuesday 27 August 1996, Council discussed the Ulladulla CBD traffic issues including the staff agreement with RTA for a strategy to manage traffic in the Ulladulla CBD, and subsequently RECOMMENDED that:

- a) *Council adopt the Traffic Principles Plan included in the report as the basis for streetscape design, subject to amendments developed through detailed design, and in conjunction with the Ulladulla Task Force.*
- b) *Council adopt the following strategy for resolution of traffic problems in Ulladulla Central Business District:*
 - i) *First stage - Single lane roundabout at the Highway/Deering Street, upgrading of St. Vincent Street (end of 1996)*
 - ii) *Second stage - Median Green to Wason Streets, no right turn out of Green Street, parallel parking, route selection study for Milton/Ulladulla By-pass (mid 1997)*
 - iii) *Third stage -Council receive a further report on the Ulladulla Traffic Issues which includes the possibility of the construction of the Southern Link Road and possible funding*

options at the conclusion of the Roads & Traffic Authority Route Selection Study.

- iv) Fourth stage - Highway/Golf/St. Vincent Streets improvements (Council make representations to the Roads & Traffic Authority to have these works contracted this financial year.*
- v) Fifth Stage - South Street signals (0-3 years).*
- vi) Sixth stage - Milton/Ulladulla By-pass (7-10 years).*
- c) Council defer the installation of directional signposting for the St. Vincent Street route at this stage and monitor the sharing of traffic into St Vincent Street.*
- d) Council proceed with the implementation of a three (3) tonne load limit on St. Vincent Street through the Shoalhaven Traffic Committee*
- e) Council continue to work closely with the Roads and Traffic Authority to implement the proposed landscaped median between Green and Wason Streets.*
- f) Council adopt the principle of a single lane roundabout at the Highway/Deering Street intersection and that the Roads and Traffic Authority be requested to proceed with design and installation of the facility before Christmas 1996.*
- g) Council write to the Minister for Roads seeking a written assurance from the Roads and Traffic Authority that the Ulladulla By-Pass will be constructed within five to ten (5-10) years.*
- h) That the General Manager (Engineering Works Manager) be authorised to carry out upgrading works in St Vincent Street and Deering Street, including a roundabout at St Vincent Street/Deering Street, pavement surface treatment at St Vincent Street, pedestrian facility provision adjacent to the Ulladulla High School and at the Ulladulla Bowling Club, pavement widening adjacent to the Ulladulla High school in St Vincent Street and funding for these works be supplemented from grant funds obtainable from the RTA and from the existing 1996/97 Road Works Program (3X3 Road Program reallocation suggested).*
- i) Council commit funding in 1996/97 to streetscape enhancement works which will flow from opportunities presented by the proposed roundabout works at St Vincent Street/Deering Street and median construction between Green Street and Wason Street, Ulladulla.*
- j) All staff involved with resolving the Ulladulla Traffic Issues is congratulated for their efficiency and commitment to the resolution of this matter and the RTA staff who assisted Council also be thanked.*

The adopted traffic strategy was silent on works required in Boree Street, as traffic modelling at the time identified that the preferred strategy was to retain Boree Street as two way traffic to mitigate the impacts of ultimate Boree Street traffic generation on both Green Street and South Street.

There was recommendation from staff at the time however that Boree Street be recognized in respective planning policies as a parking (access) street only (no through traffic) with pedestrian safety improvements planned to be provided at an appropriate time in the future as required.

The adopted traffic strategy was also silent on other intersection works now considered to be required in future as consequence of the State Government deferring the Bypass.

In the CBD, this includes intersection upgrades along St Vincent Street, but also on South Street which is also impacted due to increased delays on Princes Highway.

These additional works were not originally identified as the Ulladulla Bypass was intended to be delivered by RTA within the agreed time frame of 7-10 years.

Other intersections outside the CBD will also be impacted as consequence of the Bypass being deferred; however the focus of this report is on Ulladulla CBD Traffic Strategy.

What has happened since adoption of the Ulladulla CBD traffic strategy (1996)?

- Council had completed all of their capital works commitments in accordance with the adopted traffic strategy for Ulladulla CBD
- The Milton Ulladulla Route Selection Study was completed for RTA by Ove Arup & Partners with Council Traffic Unit engaged to complete the traffic modelling works required for input to the Route Selection Study
- The preferred alignment for the Milton / Ulladulla bypass was ultimately adopted on the LEP – gazetted June 2003
- Council ultimately determined to implement directional sign posting “alternative route” to Princes Highway via St Vincent Street for traffic (excluding vehicles over 3t) on a trial basis, and the sign posting has remained in place since that time after traffic data recorded indicated the use of signage had not significantly impacted traffic volumes on St Vincent Street
- RTA had undertaken all of their capital works commitments in accordance with the adopted traffic strategy for Ulladulla CBD with

exception of stages 5 (South Street traffic signals) & 6 (Ulladulla Bypass). As at April 2009, RTA have still not provided a timeframe for either of these works

- In relation to the South Street traffic signals, RTA advised these works could be deferred due to the success of the interim traffic strategy in re-distributing traffic away from South Street to Deering Street and ultimately to Parson Street as well. RTA had advised that they would continue to monitor the situation at South Street and implement the signals when required.
- In December 1996, RTA released the first of a series of community update newsletters to keep the public informed about the progress of the Milton Ulladulla Bypass. The newsletters confirmed RTA intent to have the Bypass constructed with 7-10 years. However since the adoption of the Bypass route on the LEP maps, RTA has not provided the community with any formal updates on the status of the Milton Ulladulla Bypass.
- In recent years during development assessment discussions RTA staff (new staff not previously involved in the Ulladulla strategy discussions) have advised they were unaware of any agreed "interim" traffic strategy and have subsequently requested Council to prepare a section 94 plan to recoup costs of the South Street Traffic signals due to the impacts of development on South Street / Princes Highway intersection.
- Whilst the adopted traffic strategy had successfully re-distributed traffic away from South Street, the increased intensity of development activity in the town centre, as well as increased traffic on the Princes Highway has seen traffic volumes steadily increase and traffic conditions gradually deteriorate at the Highway / South Street intersection.
- The issue of South Street traffic signals was not raised in conjunction with Coles or ALDI Development applications', but first raised by RTA in conjunction with development assessment of Country Target in Ulladulla. The matter was then subsequently raised by RTA during assessment of the "top of town" development application and now more recently the Woolworths DA. RTA currently maintains Council should be preparing a sec94 plan for collecting developer contributions towards the upgrade of the Highway / South Street intersection to traffic signals.
- Subsequently adopted at Council meeting held on Tuesday 16 December 2008 1671. Section 94 contributions plan - traffic Ulladulla CBD File 1373, 29521 *"Recommended that council resolve to prepare a section 94 contributions plan in relation to traffic lights and drainage in the Ulladulla CBD area"*.

- In preparation of this report, Council staff has also undertaken a review of the traffic volumes and crash history at the intersection Princes Highway / South Street. In the most recent five year crash history (to December 2007) there have been ten reported crashes at the intersection including six reported injury crashes.
- RTA Traffic Signal Design Guidelines include Warrants in Section 2 of that manual. This stipulates warrants based on crash history and traffic volume. Whilst RTA originally justified deferring the traffic signals beyond the original strategy timeframe (0-3 years) due to effective re-distribution of traffic, Council staff have determined that the intersection Princes Highway / South Street now meets RTA warrants for traffic signals based on latest available traffic and crash data.
- As part of assessment of individual development proposals in the Ulladulla CBD area in recent years, there has been an identified need for future roundabouts to be constructed on South Street at the intersections of Jubilee Avenue and Boree Street, and on St Vincent Street at the intersection of Parson Street.
- Further, traffic signals have been assessed as being required on St Vincent Street at the intersections of South Street and Green Street, and on Wason Street at the intersection of Burrill Street.
- These additional intersection improvements are considered to be required in future to manage traffic flow and improve safety at these junctions, and have subsequently been adopted as amendments to Ulladulla DCP 56 for that purpose (with exception of St Vincent Street / Parson Street roundabout which is recommended to be reassessed in future amendment).
- Apart from the traffic signals at Green Street / St Vincent Street (required as consequence of Green Street being the preferred link to the future Bypass) these additional traffic works around the Ulladulla town centre noted above were never envisaged in the earlier strategy as the Bypass was expected to be provided by the RTA within the agreed 7-10 year time frame.
- Whilst RTA have requested Council prepare a section 94 plan for recoupment of costs associated with the South Street traffic signals, RTA have not offered Council a funding commitment towards the additional traffic management works required on local roads as consequence of RTA not providing the Ulladulla Bypass in the agreed time frame
- Recent assessment of Woolworths DA has shown that the need for the roundabout at Boree Street / South Street will be brought forward by that development. However this is partly due to increased traffic on the Princes Highway.

- The assessment of Woolworths has also shown that Boree Street (if made One Way irrespective of direction) would result in unacceptable impacts at the Boree St / South St intersection.
- As part of the DCP56 review, traffic calming and pedestrian improvements could be provided on Wason Street and Boree Street. These would then be included on Map 7 of the adopted DCP56 (Infrastructure Improvements Concept Plan)
- To the south of Ulladulla CBD, Council staff have been working with RTA in partnership on what became known as the South Ulladulla Working Party. Similar to the Ulladulla CBD strategy, Council and RTA staff have agreed that the underlying principle of the South Ulladulla traffic strategy is a Highway based on two lane construction with intersection improvements at Dowling Street (single lane roundabout), Pitman Avenue (single lane roundabout) and a sea-gull intersection at highway / Kings Point Drive intersection.
- RTA have not requested Council prepare section 94 plan for any of these facilities on the Highway in South Ulladulla and have appropriately accepted these improvements as a State Government responsibility. As with the Ulladulla CBD, provision of the Ulladulla Bypass in a timely manner is integral to the South Ulladulla strategy

Ulladulla CBD - DCP 56

The recent amendments to DCP 56 incorporated the intersection works defined in the original strategy agreement, and also included most of the additional works now required in future as consequence of the Bypass not proceeding in the agreed timeframe.

Those works not included in the recent amendment, but recommended to be reassessed on review of DCP 56 to ensure the DCP reflects the preferred interim strategy have been discussed elsewhere in this report.

On the specific issue of traffic management in Boree Street the section below discusses issues associated with a one way traffic scheme and why two-way traffic is recommended to be retained in the strategy.

Boree Street – One Way or Two Way?

Making Boree Street a one way street (either northbound or southbound) will have adverse traffic impacts on South Street (and Green Street) as all Boree Street traffic movements will be concentrated at Green Street and at South Street, as opposed to the current two way arrangements where traffic impacts are more broadly distributed.

Traffic analysis has shown South Street will not have the capacity in future to accommodate the increased traffic as consequence of a one way traffic scheme on Boree Street.

Most recently the assessment of traffic impacts of the proposed Woolworths development have shown adverse traffic impacts on South Street as a result of a one way scheme in Boree Street, irrespective of direction.

Not withstanding the traffic argument alone, there are other issues associated with a one way traffic scheme that make a one way proposal problematic, namely;

Road Width Issues

The current width of Boree St is 10.8m kerb to kerb. This is considered narrow for two way traffic, but is not unacceptable.

If cars parked both sides in the usual manner, this would typically leave a minimum of 5.8m for two way traffic, or 2.9m per lane. However wider lanes could be provided if edge line marking were employed to delineate the edge of parking lane.

Typically lanes are 3m in town centre areas, and this is the usual recommended minimum lane width on local roads.

Whilst 2.9m (current practical available minimum width) is narrow, it is not critical, and narrow road widths in effect have known speed advantages when in conjunction with two way traffic.

Boree Street does not have any (or in fact an insignificant amount of) through traffic, essentially the role of Boree Street is that of a parking street.

Australian Standard (AS2890) Off Street car parking identifies that the minimum width for a two way traffic aisle in a car park is 5.8m, so the width of Boree Street complies with AS2890 for a parking street, however given the public road status and the prevailing road conditions speeds and pedestrian safety are of concern. However this can be addressed by way of traffic calming devices (ramped thresholds) and pedestrian safety improvements.

Marginally wider lanes would otherwise be desirable due to the presence of commercial vehicles servicing the area (min 6m) but in practical terms the cost of widening for such marginal benefit is not justified, particularly when considering that road widening could have adverse impacts (wider for pedestrians to cross, wider roads induce higher traffic speeds) etc.

The current road reserve is variable from 17-19m. There has been some acquisition of land along the western side of Boree Street in the past

however there is no current strategy for widening in the current DCP or Section 94 Plan.

In summary on the issue of road widths, it is not essential for traffic reasons to widen the existing road however; Council may wish to provide wider footpaths for enhanced pedestrian service and amenity which is a subjective matter for Council.

Grade / Speed Issues

Because of the grades of Boree Street, speeds are often higher than is appropriate for the given conditions (narrow road, presence of pedestrians etc) and this is a factor that exacerbates the situation in Boree Street.

At the top of hill in Boree Street (south end) grades are 1 in 7 approx (or 14%). At the bottom of the hill (north end) grades are flatter at 1 in 20 approx (or 5%).

If a one way scheme were to be introduced in Boree Street, irrespective of whether up hill or down hill, speeds are likely to increase (as has been found to be the case with most one way schemes) and as such traffic calming devices (ramped thresholds) will be required anyway to address the speed issues. Further, it is considered speeds are likely to be even greater under a one way scheme in Boree Street due to the prevailing grades.

In summary on the issue of grade and speed, traffic calming devices (ramped thresholds) and pedestrian safety improvements would be recommended for Boree Street irrespective of whether one way or two way to reduce vehicle speeds in a concentrated pedestrian environment, and retaining two way traffic on a narrow parking street such as Boree Street is considered a benefit in terms of speed control.

Traffic Impacts

If a one way scheme was introduced (direction - up the hill), all traffic in Boree Street would have to exit to South Street. If a one way scheme was introduced (direction - down hill) all traffic would have to enter Boree Street from South Street.

Irrespective of direction, under a one way scheme all traffic would have to use South Street (and Green Street), where as the current two way network allows traffic to be broadly distributed which mitigates the traffic impacts on any one street.

The effect of the Interim Ulladulla CBD strategy to date has been to distribute traffic away from the Princes Highway / South Street intersection, however steadily traffic has increased and will continue to increase at this location due to increased development activity and increased Highway traffic.

Traffic modelling identifies that with future signals at South Street / Princes Highway intersection, some of the traffic that currently avoids South Street would choose to use South Street as an efficient and safe access to and across the Highway. This would result in a marked increase in traffic on South Street.

When this additional traffic (attracted to South Street as consequence of traffic signals) is combined with increased development and increased Highway traffic, traffic modelling indicates that South Street will be a very busy CBD street in the future, with potential for queues to extend along South Street (back through the Boree Street intersection to the west of the Highway and back through the Jubilee Street intersection to the east of the Highway).

Apart from local traffic management issues, the longer expected vehicle queues back from the Highway are the primary reason for requiring future roundabouts at Boree / South intersection and Jubilee / South Street intersection to ensure a reasonable level of safety and traffic management. Traffic approaching South Street from these roads will not be able to see approaching traffic due to the physical obstruction of vehicle queues.

Retaining Boree Street as a two way street gives traffic on Boree Street an alternative to avoid South Street, and this is an important element of the strategy.

On each occasion Council's traffic unit has reviewed the traffic data for Ulladulla CBD, the optimum scheme to manage traffic in the future is to provide motorists with alternatives rather than forcing all traffic to Green Street and South Street, and this also provides people with optimum accessibility.

In summary on the issue of traffic impacts, there is inadequate capacity for South Street to accommodate additional traffic in future, and the most appropriate strategy is to allow traffic to avoid South Street by retaining Boree Street as a two way street.

Parking Issues

One way traffic schemes are often introduced to optimise parking supply (often enables provision of angled car parking). However this is subject to road widths meeting minimum standards.

There would be no parking benefits with a one way scheme on Boree Street due to the narrow width of the road reserve.

AUSTROADS standards require (for 45 degree parking layouts) a 10.3m width to allow safe provision of angled car parking.

As the current road width is 10.8m, the road is wide enough to allow one way, however driveways and driveway access for all vehicles would be significantly affected.

This is because as consequence of the additional road requirements of angled parking, a one way traffic scheme would involve forcing traffic entirely to one side of Boree Street, reducing effective manoeuvring width to just 4m, well below an acceptable standard for accessing driveways.

At this width (4m), even light vehicles would have difficulty negotiating driveways, where as service vehicles including larger vehicles would not be able to negotiate driveways without considerable loss of parking in the vicinity of each driveway, and some larger vehicles (for example for Country Target) will have to take up the whole road.

This means is that for a one way scheme to work in a practical sense (with angled car parking), the road would have to be widened, or alternatively the consequence is likely to be significant loss of parking, not the gain of parking some would ordinarily presume to be a benefit of a one way scheme.

If a one way scheme was introduced on Boree Street, parallel parking would have to be retained on both sides. However this would mean the road carriageway would be too wide for a one way street and road narrowing treatments would need to be introduced along Boree Street which would result on loss of parking.

Whilst some road narrowing treatments would be required in future under a two way scheme, because of the prevailing grades and road widths, it is considered more treatments would be required under a one way scheme to achieve appropriate speed control which would further impact parking supply.

In summary on the issue of parking, there are no parking benefits of a one way scheme in Boree Street because of the narrow road reserve, and as such if the road widths had to be augmented anyway to accommodate a one way scheme, the extent of work required could not be justified when the current width is suitable already to two way traffic and parallel parking.

Summary - Boree Street; One Way or Two Way?

A One Way traffic scheme in Boree Street is not recommended. It is considered a one way traffic scheme is likely to have adverse impacts in terms of traffic impacts on South Street, likely higher speeds, impact on driveway access including service vehicle access, and likely greater impacts on parking supply.

Boree Street is recommended to be retained as a two way street, however with ramped thresholds and pedestrian improvements to be included in forward program.

This strategy will ensure Boree Street is maintained as a parking street with through traffic discouraged and vehicle speeds kept to reasonable minimum level appropriate in a concentrated pedestrian environment.

The current width of Boree Street is in accordance with Australian standards for a parking street however it is important vehicle speeds are controlled to an acceptable low level to enhance safety for all road users.

If Council wanted to widen Boree Street, this could not be justified on traffic grounds, however could be considered for other purposes such as providing wider footpaths for enhanced amenity and increased pedestrian level of service.

Given the development potential in the Boree Street precinct, Council could protect options for road widening by continuing a strategy of land acquisition along Boree Street as development occurs.

Additional road reserve widening would allow the option of marginal road widening if Council chooses (not justified on traffic grounds) however more practically this could offer Council and the community opportunities for enhanced streetscape and wider paths to accommodate more pedestrian activity in future. This is a subjective matter for Council's consideration.

REPORT OF GENERAL MANAGER**ORDINARY MEETING****TUESDAY, 8 JULY 2008****STRATEGIC PLANNING****1. Preparation and Exhibition of Huskisson Town Centre Contributions Plan (s94 draft Amendment No.10) File 1626-02, 10132-05**

Purpose of Report

To seek Council concurrence with the key principles to be included in a Draft Contributions Plan for Huskisson Town Centre as an extension of the review of Development Control Plan DCP 54 and of the Huskisson CBD infrastructure plan prepared by consultants.

Background

DCP 54 Amendment No. 2 for Huskisson CBD was adopted by Council on 1st May, 2007. During the review of the DCP, it was expected that there would be a separate analysis of infrastructure requirements to meet the demands of the higher development density permitted by the DCP, and that this would lead to Amendment No. 10 of Council's Section 94 Contributions Plan.

Following MIN06.1646 of 28th November, 2006, Council engaged consultants The Planning Group and Cardno Forbes Rigby for the purpose of infrastructure concept design, cost estimation and justification of future contribution rates. Preliminary findings were presented to a Councillor briefing on 21 June 2007, where additional options were requested.

Following commencement of this work, Council adopted DCP 54 Amendment 3 in relation to development controls over the RSL vacant land (Lot 2 DP571682). Council also agreed (MIN07.784) to review possible amendments to DCP 54 which has resulted in the preparation and exhibition of DCP 54 draft Amendment 4. Consequently, the Consultants' recommendations in relation to provision of infrastructure required review.

A further delay was brought about by proposed amendments to the EP&A Act that in part relate to developer contributions. The NSW Parliament has now agreed to a new legislative framework. Although not yet gazetted and with details still to be included in an amended Regulation, Council staff are of the opinion that a contributions plan based on the options proposed in this report will satisfy the new criteria.

It is now timely that the principles and options for a contributions plan be made available for public scrutiny during this stage of the DCP review, with the recommendations of the consultants reported here for Council's consideration. A copy of the consultants' final report is located in the Councillor's room.

Draft Infrastructure Plan*Extent of the investigation area*

The consultant's primary focus for infrastructure provision was the area that is the subject of DCP 54, being the CBD of Huskisson plus land to the immediate north (ie. the area bound by Sydney Street to the west and Bowen Street to the south). The investigation area included the currently vacant land owned by Huskisson RSL Club Ltd., but not Voyager Park or White Sands Park because these are already accommodated in the Contributions Plan and have management plans in place. The consultants divided the investigation area into discrete precincts for the purpose of identifying infrastructure works and cost estimation. In this way the consultants were able to test a range of infrastructure possibilities and adjust cost estimates accordingly.

RSL vacant land and wharf area

This area was the subject of special consideration by the consultants, on the possibility of this land coming into Council ownership following a call by the RSL Club for expressions of interest in its purchase.

The consultants considered that a plaza development above underground parking at this site would be relatively expensive for the number of parking spaces that would be provided.

Since this work was undertaken, Council has adopted development controls for this land via DCP 54 Amendment 3. In any case, considering the special significance of this site to the region and its expected high cost, it would be unreasonable to include acquisition of this land in a contributions plan that required funding by future development unless Council had actually acquired the site.

Irrespective of the future ownership of this land, the consultants have recommended that some embellishment works are required in the area adjacent to the wharf and that part of Currambene Street leading to it, which will result in improved access for service vehicles and pedestrians.

Road works and traffic facilities

The consultants have included road works as proposed in the DCP. The major work is associated with relieving Owen Street of through traffic by construction of Sydney and Bowen Streets to a higher standard, and the provision of roundabouts at the intersection of Owen Street and Sydney Street and the intersection of Hawke Street and Bowen Street. This strategy will facilitate traffic circulation in and through the town centre and the development of Owen Street and Currambene Street as a focal point.

For the purpose of a draft contributions plan, it is noted that construction of Bowen Street as a relief road for through traffic is of benefit to a wider area than just the Huskisson Town Centre. Consequently, it is recommended that the construction of the proposed roundabouts, but not the reconstruction of Bowen Street, be included in the Huskisson Town Centre contributions plan and the Bowen Street project be reviewed with other road projects for Planning Area 3.

Service Access

Two service roads are proposed, off Morton Street and Currambene Lane, to allow rear service access to commercial premises and to phase out servicing from Owen Street, Currambene Street

and Hawke Street. In addition, the eastern end of Field Street will be constructed to allow service vehicle turning. Because the provision of rear service access is of primary benefit to those properties that enjoy the access so created, it is recommended that the draft contributions plan require dedication of land for that purpose as development of affected properties proceeds. Where a property may suffer disadvantage by the creation of a rear service lane of benefit to others, an allowance for compensation can be included. This principle was agreed by Council at the meeting on 10 June 2008 in considering the principles to apply to the Ulladulla Town Centre Contributions Plan.

Pedestrian plazas and facilities

The consultants have recommended that Currambene Street south of Owen Street be open only to south-bound one-way traffic to facilitate the embellishment of the wharf area as a focal point for the Town Centre. Additional pedestrian and streetscape improvements are proposed.

Car Parking

The consultants have recommended that an additional 155 parking spaces will be required to meet demand from future commercial development to 2026. They indicate that this can be accommodated by provision of formal parking spaces in existing road reserves.

A number of factors should be considered:

- The current contribution rate for car parking is \$11,752 per space. Council's Car Parking Code (DCP 18) requires 1 parking space per 24 m² of gross leaseable retail floor space, equivalent to \$48,967 per 100 m². This will be an important comparator to contribution rates proposed later in this report.
- The current contributions plan proposes expansion of the existing car park at Owen Street. However, Council has previously decided not to acquire certain adjoining land and is negotiating for development over the existing Owen Street car park. This is expected to preserve current car parking supply and to accommodate demand from future development of this and the adjoining sites to the west, but not the demand from other commercial development.
- The consultants estimate assumes continuation of the long-standing principle that residential parking be provided on site. Under these circumstances, any contribution for car parking should only apply to commercial development.
- Any significant increase above the estimated 155 spaces to provide public parking for residential development will require acquisition of additional land, significantly adding to the future cost of public car parking.
- Public parking by way of developer contributions is normally provided off-street, with on-street parking usually considered as overflow, short duration supply and as replacement for other street parking when traffic controls require a reduction in on-street parking.. However, in this case, the consultants have recommended otherwise because of the limited additional demand and the presence of 30m road reserves which will provide sufficient angle parking spaces. If Council considers the demand for parking from future development should not be provided in road reserves because of the high demand for visitor parking during peak holiday periods, additional land will need to be acquired. If this is seen as an appropriate approach further investigation will be required.

On balance, the consultant's recommendation is reasonable and cost-effective in the short to medium term, which will keep future contribution rates to a minimum, provided Council does not

agree to provide public parking to meet demand from future residential development. Longer term demands will possibly require further strategic acquisitions by Council.

Stormwater drainage

Some minor improvements and extensions of the existing stormwater drainage system are required. The proposed works also allow devices to intercept fine particles and emulsions from petroleum and other sources of contamination from road and car park surfaces, in addition to gross pollutant traps, to improve the quality of stormwater discharge.

Streetscape improvements

The consultants have included completion and extension of the existing streetscape to the full description of the DCP. Costs are based on maintenance of existing streetscape standard.

Estimated costs

The cost of works for inclusion in a draft contributions plan, as estimated by the consultants, is summarised in Table 1.

Table 1
Estimated costs of proposed infrastructure works for Huskisson Town Centre

Item	Estimated Cost
Road Construction	\$1,693,199
Footpath Construction	\$852,950
Drainage	\$369,875
Linemarking and Signage	\$46,485
Landscaping	\$441,870
Services adjustment	\$280,000
Miscellaneous	\$792,000
Roundabout Hawke/Bowen Streets	\$500,000
Roundabout: Sydney/Owen Streets	\$600,000
Water quality treatment (Wharf area)	\$120,000
Car parking	\$538,263
Sub-total	\$6,234,641
Survey, Design and Project Management (10%)	\$623,464
Contingencies (15%)	\$935,196
Total	\$7,793,301

Principles of cost apportionment

Car parking

It is proposed that costs for additional public car parking spaces be apportioned to future commercial development.

Cost share for existing development

It is recognised that existing development will generate demand for and benefit from works proposed here. It is recommended the cost share of existing development be borne by Council. Council can consider recouping past expenditure on works described in the works schedule (eg. road works and streetscape improvements in Owen Street).

Nexus

It is necessary to demonstrate that development generates the demand for the works. The draft DCP proposes a greater development density in the Town Centre than currently exists and under the existing DCP. Council's consultants have advised that this development density will require the provision of local infrastructure as per their report. In accepting responsibility for the cost share of existing development, Council is demonstrating support for the principle of nexus. The development industry may argue that works such as streetscape improvements are not essential works, and should only be insisted upon for their particular street frontage. However, the context of this plan is the creation of a viable commercial and residential precinct for which commercial operators and CBD residents will generate demand. This in part applies to streetscape amenity, so it would be reasonable to expect developer contributions toward this goal. Reference is made to the possibility of development undertaking work in kind, which could include streetscape works.

Reasonableness

Irrespective of the nexus between development and infrastructure demand, a contribution is to be reasonable and should not be an excessive burden to development nor on existing ratepayers. In accepting a cost share on behalf of existing development, Council will be recognising this requirement.

It would be unreasonable to require developer contributions to help pay for all possible infrastructure costs. A case in point is the extent of works required to service the wharf area. It is reasonable to include essential services such as public access to the wharf (ie. as essential services to a public facility) but it is considered unreasonable to expect developer contributions to provide additional services (eg. an extension of the wharf itself that enhances the commercial objectives of individual operators). Should Council proceed with a higher level of service, then additional funding sources will be required.

Contributions Area, expected development and possible contribution rates

The Contributions Area represents those properties that will be required to make development contributions when development occurs. For the purpose of a Contributions Plan, the consultants considered a number of scenarios for setting the contributions area, as follows and as shown in the map in Attachment 'A' for the first 3 scenarios:

1. Huskisson CBD as represented by the area the subject of DCP 54. This area is zoned 3(a) Business Retail, 3(f) Business Village and 3(g) Business Development Area which represents the main commercial centre and a significant generator of future commercial and residential demand. The consultants estimate future growth in the CBD area to 2026 to be an increase of 4,890 m² of retail and other commercial floor space (equivalent to 437 ET) from the existing floor space of 6,057 m², plus 200 additional residential apartments (equivalent to around 160 ET).

However, demand for works in the Town Centre will also come from nearby residents, tourists and visitors. The following scenarios allow for contributions to be levied on development beyond the DCP boundary.

2. As for 1, but expanded to include land to the south zoned 2(b2) Residential in recognition of additional infill medium density residential development in this area. The consultants estimate future growth to be an additional 210 dwellings (168 ET) from the existing 259 ET in this area.
3. As for 2, but expanded to include tourist development sites (zoned 3(g) Business Development Area) in close proximity to the Town Centre. The consultants estimate future growth to be an additional 20 dwellings (16 ET) from the existing 78 ET in this area.
4. As for 3 but expanded to include land zoned 2(a1) in close proximity to the Town Centre where there is a small amount of dual occupancy development potential. This has problems with relation to nexus and is not recommended for detail evaluation.
5. The whole of Huskisson.

For each scenario, the total cost is the same, but each has a different level of existing and expected future development and therefore a different ratio for Council and developer cost share and a different contribution rate. Table 2 summarises costs share and contribution rates for the first 3 scenarios. For scenarios 4 and 5, further development potential on land zoned 2(a1) Residential is limited to dual occupancy development on existing properties and is not considered sufficient to warrant further consideration.

Table 2
Analysis of contribution rates (Total cost \$7,793,301)

Contribution Area ¹	Residential development cost share	Proposed residential contribution rate (per ET)	Commercial development cost share	Proposed commercial contribution rate (per 100 m ² GLFA) ^{2, 3}	Council cost share
1. DCP area	\$1,388,875	\$8,680	\$4,412,368	\$10,097	\$1,992,058 (25.6%)
2. Include land zoned 2(b2)	\$1,877,299	\$5,723	\$3,120,159	\$7,140	\$2,795,843 (35.9%)
3. Include Tourist Development sites	\$1,831,527	\$5,324	\$2,945,680	\$6,741	\$3,016,095 (38.7%)

Note 1. Refer to map in Attachment 1.

Note 2. In the absence of more detailed information, 100 m² of commercial floor space is equivalent to 1 ET.

Note 3. In evaluating contribution rates for commercial development, it is to be noted that the rates listed in Table 2 include contributions for car parking. This means that the existing contribution for car parking, equivalent to \$48,967 per 100 m² of leaseable commercial retail floor space, will be replaced with the rates in Table 2.

The contribution rates in Table 2 will be in addition to contribution rates in Council's current Contributions Plan (except for car parking).

Scenario 3 is recommended to Council because it more equitably distributes infrastructure contributions across a range of demand-generating development types, recognises the demand for car parking from commercial development and provides a more reasonable contribution rate.

Other matters

Pooling of contributions

Contributions can be pooled and progressively applied to capital works listed in the Plan. In this way, construction of highest priority works can proceed as development proceeds and contributions are received. The following conditions are legislated:

- contributions must be applied to the purpose they were collected
- the Plan must list the works that contributions are to be applied to, and their priority
- pooling cannot prejudice the carrying out of works for which contributions are made

Work in Kind

Council's contribution plans allow for development to undertake public works as work in kind in lieu of monetary contributions, subject to certain conditions.

Council funds not in current budget

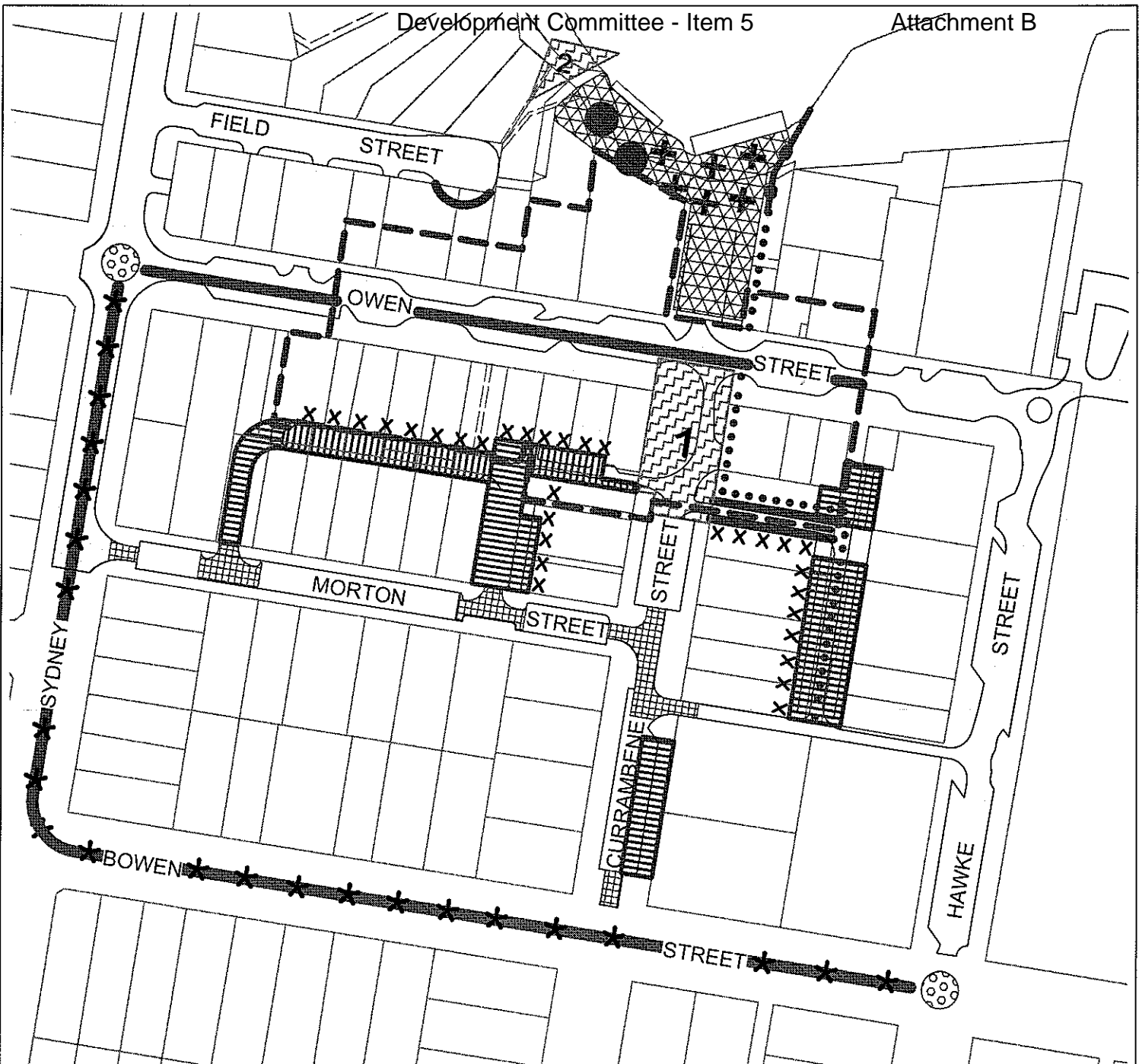
Apportioning some cost to Council will require consideration in future budget reviews.

Conclusion

Council's guidance on cost apportionment will permit a draft Huskisson Town Centre Contributions Plan to be finalised and exhibited. The timing is appropriate given exhibition of the draft DCP, a forthcoming meeting of the DCP Working Party and greater clarity now available on proposed legislative changes to developer contributions.

RECOMMENDED that in relation to a draft Huskisson Town Centre Contributions Plan:

- a) **A draft plan be prepared based on scenario 3 and the principles described in this report;**
- b) **The draft plan be exhibited for 28 days; and**
- c) **Outside of the draft Section 94 Contributions Plan amendment Council consider strategic property acquisition in Huskisson with a view to meeting long term car parking demand.**

**KEY****SHORT TERM**

- LAND ACQUISITION OR DEDICATION
- XX** LIGHTING
- WHARF IMPROVEMENTS - SEWERAGE/FUEL
- TRAFFIC FACILITIES - ROUNDABOUT
- DRAINAGE
- CARPARK & SERVICE ACCESS IMPROVEMENTS

MEDIUM TERM

- TRAFFIC MANAGEMENT
- RELIEF ROAD
- STREETSCAPING IMPROVEMENTS
- WHARF UPGRADES
- WATER QUALITY IMPROVEMENTS

LONG TERM

- CURRAMBENE PLAZA
- WHARF EXPANSION
- RETAIL CORE

Possible Future Infrastructure Works
Subject to Investigation & Costing

Department of Local Government

Review of the *Swimming Pools Act 1992*

August 2008

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Abbreviations

ABS	Australian Bureau of Statistics
AWSC	Australian Water Safety Council
BCA	Building Code of Australia
Col	cost of illness
DALY	disability adjusted life year
DoHA	Department of Health and Ageing
ED	Emergency Department (hospital)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
LG Act	<i>Local Government Act 1993</i>
QISU	Queensland Injury Surveillance Unit
RIS	regulatory impact statement
RLSSA	Royal Life Saving Society of Australia
WTP	willingness to pay
VSL	value of statistical life
YLL	years of life lost

‘The Act’ means the *Swimming Pools Act 1992*.

‘The Regulation’ means the *Swimming Pools Regulation 1998*.

All references to sections or clauses are to the Act or the Regulation respectively unless the context makes clear to the contrary.

AS1926-1986 refers to Australian Standard AS1926-1986: *Fences and Gates for Private Swimming Pools*.

Executive Summary

The Department of Local Government is undertaking a review of the *Swimming Pools Act 1992* (referred to as the Act). The NSW swimming pool legislation is designed to improve safety in and around swimming pools by restricting access to swimming pools by small children. The review is in response to a request from the NSW Water Safety Taskforce, now known as the NSW Water Safety Advisory Council, which has commissioned a number of studies into water safety issues.

The review included an extensive consultation program that provided opportunities for councils, stakeholders and members of the public (including pool owners) to make submissions. A discussion paper was issued to facilitate the consultation process.

A number of Australian research reports have found that the risk of toddler drownings in swimming pools is related to the type of fencing for the pool (or the absence of any fence). In particular, the rate of drownings observed with pools that have four-sided fencing (that separates the pool from any residential building) is significantly lower than the rate for pools with three-sided fencing (where the building constitutes part of the pool barrier). While there have been no studies in NSW, it is considered that the findings of research in other states can be applied to NSW provided care is taken in interpreting the results.

The Act has a general requirement for pool fences that separate the pool from any residential building, but a number of exemptions are provided for that allow for three-sided fences on the condition that doors and windows that give access to the pool are 'child-safe' as defined in the regulation. The research cited in this review found that pools with three-sided fences and child-safe doors and windows were associated with a risk 2.88 times higher of drowning than pools with four-sided fencing. The question of these exemptions has generated considerable debate and was the focus of analysis undertaken as part of the review.

The findings from this analysis was that the increased risk for three-sided fencing in NSW was 24 drownings per million pools compared to the risk associated with four-sided fencing. To this must be added the number of non-fatal immersions that result in serious brain damage, which are considered to be approximately half the number of drownings (an increased risk of 12 immersions per million pools).

Reductions in the trauma of swimming pool immersions represent the real benefits from legislating for improved swimming pool barriers. However, economic theory can take the analysis further by providing monetary estimates of the benefits for the purpose of supporting policy decisions for public health and safety. The findings from the valuation exercise are that the benefits of the reduction in risk in going from three-sided fencing to four-sided fencing are valued at \$88 for each pool per year. This compares to an average cost of a 'standard' pool fence of \$172 when annualised over the life of the fence. However, the basis of comparison should be the incremental cost between a three-sided fence and a four-sided fence, and this cost is substantially lower.

It is concluded that the reduction in risk outweighs the costs in the case of new fences, but that the analysis does not support requirements for refitting four-sided barriers to existing pools with three-sided fences, except in cases where the pool area is substantially modified requiring a new fence to be installed. Nor does the analysis provide a strong case for mandating a regular inspection regime for swimming pools.

The review makes the following specific recommendations.

Recommendations

Recommendation 1: (section 7.1 of report, section 4 of the Act)

It is recommended that the current definition for 'swimming pool' be retained and that there is no change to the scope of application of the Act. Consideration could be given to clarifying that the definition for swimming pool refers specifically to the structure or vessel itself to remove confusion

Recommendation 2: (section 7.2 of report, sections 8, 9, 10, 13 of Act)

It is recommended that further consideration be given to removal or amendment of the current exemptions to specific pool barrier requirements in particular situations with a view to eliminating apparent inconsistencies.

Recommendation 3: (section 7.3 of report, sections 8, 9, 10, 13 of Act)

If it were decided to remove one or more exemptions to specific pool barrier requirements in particular situations, then it is recommended that certain issues be addressed in relation to whether and how this will be implemented for existing pools.

Recommendation 4: (section 8.1 of report, section 12(c) of Act)

Given the absence of evidence linking drownings to structures within swimming pool fences on residential properties, it is recommended that no change be made in regard to structures within the bounds of barriers around non-exempt private swimming pools (ie. that structures continue to be permitted within barriers surrounding such swimming pools).

Recommendation 5: (section 8.2 of report, section 21 of Act)

No change is recommended in regard to the treatment of multiple pools in close proximity as a single pool in relation to barrier requirements.

Recommendation 6: (section 8.3 of report)

Given the links to the *Environmental Planning and Assessment Act 1979*, it is recommended that the matter of restriction of access to swimming pools under construction be pursued with the Department of Planning.

Recommendation 7: (section 8.4 of report, section 19 of Act)

It is recommended that section 19 be redrafted to remove all references to doors, so that walls are allowed as part of a pool barrier provided there is no access at any time to the swimming pool.

Recommendation 8: (section 8.5 of report, section 20 of Act)

It is recommended that the exemption for spa pools from the general requirements for a pool barrier be retained.

Recommendation 9: (section 9.1 of report)

It is recommended that further consideration be given to mandating compliance certificates at all or certain times (such as sale of property), in tandem with consideration of a pool register and inspection regime, but that any decision should weigh up the real contribution that compliance certificates can make to pool safety against the expected costs.

Recommendation 10: (section 9.1 of report)

It is recommended that consideration be given to swimming pool inspections for specified occurrences (such as sale of property).

Recommendation 11: (section 9.1 of report, section 5 of the Act)

It is recommended that all councils be expressly required to develop a swimming pools register and, at the least, store information for all swimming pools installed or constructed in the future. Consideration should be given to developing a standardised format for storage of information to provide compatibility across councils and leaving open the possibility of a single pools register.

Recommendation 12: (section 9.1 of report)

It is recommended that:

- swimming pools be subject to certification for compliance with the Act at time of sale of the property
- consideration be given to accrediting third party certifiers for assessment of swimming pools at time of sale of the property but not give them power to grant exemptions under section 22 of the Act.

Recommendation 13: (section 9.2 of report, section 35(6) of Act)

Given the seriousness of the consequences of offences under the Act it is recommended that the maximum penalty for a penalty notice be increased to five penalty units, and that a corresponding increase be made for penalties where matters go to court.

Recommendation 14: (section 9.3 of report)

It is recommended that further consideration be given to legislating powers for councils to do remedial works on swimming pool fences, in situations where there is an immediate hazard and where the owner is unable or unwilling to undertake the works, subject to appropriate controls, such as a court order.

Recommendation 15: (section 10.1 of the report)

It is recommended that the legislation of swimming pools be kept in a stand alone Act.

Recommendation 16: (section 10.1 of the report)

It is recommended that compliance certificates be used in preference to certificates issued under section 149A of the *Environmental Planning and Assessment Act 1979* if certification of swimming pools is made mandatory at point of sale of a property.

Recommendation 17: (section 10.1 of the report)

It is recommended that the question of whether swimming pool fences come under the scope of section 149A of the *Environmental Planning and Assessment Act 1979* be pursued further with Department of Planning.

Recommendation 18: (section 10.2 of the report)

It is recommended that the current approach to prescription for the regulation of swimming pools be retained with the possible exception of section 5(a) of the Act, which would become superfluous if it is decided to legislate for a swimming pools register.

Recommendation 19: (section 11.1 of report, Schedule 1 of the Act)

It is recommended that consideration be given to revising the diagrams in the Act for greater clarity, perhaps along the lines of those in the relevant Australian Standard, AS1926.

Recommendation 20: (section 11.2 of report, Dictionary to the Act)

It is not recommended that there be further or changed definitions in the Act, other than for definitions of additional terms generated by changes elsewhere in the Act. The matter of definitions in the regulation will be addressed in the RIS.

Miscellaneous recommendations (section 11.3 of report)

It is recommended that no changes are made to the wording of section 23 of the Act.

It is recommended that section 15(1) focus more on children and that the last line should read 'as an effective and safe child-resistant barrier.'

It is recommended that the provisions relating to the Pool Fencing Advisory Committee be removed.

It is recommended that, to the extent possible, the *Swimming Pools Act 1992* be made consistent with other legislation under which councils have powers or responsibilities, in regard to provisions for

- the use of the term 'authorised officer' instead of the current 'inspector' (Part 3 of Act)
- the current requirement for the certificate of identification to be in the 'prescribed form' (section 27(2) of Act)
- additional technology that may be used for the service of notices (section 34 of Act)

It is recommended that the name of the Act is not changed (for example, to the Pools Act).

It is recommended that pool covers not be considered as a means to restrict access to swimming pools by small children.

It is recommended that proceedings to remedy or restrain a breach of the Act be allowed in either the Land and Environment Court or the Local Court, as it would be convenient for councils to be able to have all proceedings conducted in the same Court (section 26 and Part 3 of the Act).

Given the serious nature of the consequences of non-compliance with the *Swimming Pools Act*, it is recommended that consideration be given to expressly absolving councils of the requirement to provide notice of an intention to issue an order to bring a pool into compliance with the Act (section 23).

It is recommended that requirements for signage on depth of water in swimming pools be pursued with the Department of Planning.

It is recommended that further considerations be given to the need for inclusion of explanatory notes relating to section 22.

Part 1: Introduction

This report is divided into three parts:

- Part 1 provides background material on the process of the review, the NSW swimming legislation, definitions to be used in the rest of the report, and an overview of broad concepts in regard to risk and regulation;
- Part 2 addresses the question of government intervention in swimming pool safety, structured on the three criteria of effectiveness, efficiency and equity; and
- Part 3 contains a detailed assessment of individual provisions in the legislation in the light of submissions received from stakeholders.

1. Background

1.1 The process of the review

The review of swimming pools legislation by the NSW Department of Local Government (the Department) has been conducted in response to a request from the NSW Water Safety Taskforce, now known as the NSW Water Safety Advisory Council, which recommended the legislation be reviewed based on a number of studies commissioned by the Taskforce¹.

In addition, the Swimming Pools Regulation 1998 (the Regulation) is to be remade. The Department will therefore concurrently prepare a regulatory impact statement (RIS) for the replacement regulation, which will include any proposed changes flowing from the Act review.

To ensure that community views on swimming pool safety and the associated legislation are taken into consideration during the review, the Department has implemented an extensive consultation program. Calls for preliminary submissions were advertised in the press in August 2005. At the same time letters were sent to organisations with a direct interest in swimming pool safety, and all councils in NSW received a circular, inviting comment on the Act.

The Department received 27 submissions, 16 of which were from councils (one council put in two submissions). Appendix 1 contains a listing of those that provided submissions.

A discussion paper was prepared based on the submissions received, a review of the literature and recent reports on swimming pool safety issues², and discussion with workers in the field. The discussion paper was released in August 2006 and submissions were invited from any individual or organisation with an interest in swimming pool safety. A total of 64 submissions were received, 32 were from councils, 21 from members of the public and the remainder were from various organisations (refer Appendix 1 for a detailed list).

¹ See HRVF (2003), Van Weerdenburg et al (2003) and Williamson et al (2002). These reports are available on the Safewaters website at www.safewaters.nsw.gov.au.

² Reported analysis on swimming pool drowning is based mainly on coroner reports.

This report expressly notes the major issues raised in the submissions (both preliminary and in response to the discussion paper) and these are to be found in Part 3 of this report.

1.2 Swimming pool safety

Accidental drowning is the major cause of deaths in very small children. This is due to a combination of children's low risk awareness, undeveloped gross motor skills, mobility and natural curiosity combined with lapses in adult supervision.

The Royal Life Saving Society of Australia has recently published drowning data on a national basis (RLSSA, 2005). More detailed information provided by the RLSSA indicates that in the seven years from 1997/98 to 2003/04, a total of 97 children in the age range 0 to 5 years died from drowning in NSW, the second highest cause of death for this age group. Of these, 41 children (42%) drowned in backyard swimming pools³.

Detailed analysis by Williamson et al (2002) of drowning in backyard pools for the period 1995 to 2001 indicated that some form of fencing was known to be present in 74% of cases. There was no fence in 15% of cases (in 40% of these the pool was under construction) and the remainder were either 'not known' or 'not relevant'.

Not all unintended immersions of small children result in fatalities. Near-drownings are a significant aspect of the trauma associated with backyard swimming pools. Depending on how long a child is in the water and the timeliness and effectiveness of resuscitation efforts, the child may suffer consequent health effects including brain damage. The following estimates of near-drownings have been provided by NSW Health (2005).

Data regarding hospitalisations were extracted from the NSW Inpatient Statistics collection, a census of all admissions in NSW, for the three financial years 2002-03 to 2004-05.

Just over half (56%) of the hospitalisations for drowning or submersion in a swimming pool were recorded as occurring in a home. Over the period there was an average of 44 hospital admissions per year for drowning or submersion while in, or following a fall into, a backyard swimming pool (excluding hospital transfers and 'type-change' admissions).

82% of these admissions were for children aged 0-4 years (an average of 36 admissions for young children per year). 11% of the admissions ended with death⁴.

It is difficult to determine the number of near-drownings that lead to an emergency department (ED) visit but not to hospital admission, as there is no data collection that records all visits to EDs in NSW.

However information is available from the NSW Public Health Real-time Emergency Department Surveillance System for 30 of the EDs. These data allow

³ Information is collected from National Coroner Information System (NCIS), State Coroner's office and media reports.

⁴ As for all hospitalisation data, the accuracy of these figures is dependent on the completeness and accuracy of the information recorded in hospital records and the coding of these records.

an estimate to be made of the number of ED visits for near-drowning in backyard swimming pools in NSW as a whole. The rate of admission for the recorded sample of ED visits is applied to the statewide number of hospitalisations in the Inpatient Statistics Collection.

This calculation suggests that there were approximately 60 ED visits per year in NSW due to drowning or submersion associated with backyard swimming pools in the period 2002-03 to 2004-05 of which 51 related to children in the age range 0-4 years.

The majority of these led to an admission. It is important to note that this estimate should be treated as only a rough indication of the number of ED visits. The estimate is based on a number of assumptions, particularly that the rate of admission observed in the 30 EDs is representative of all NSW EDs. Furthermore the methods used to identify relevant ED visits rely on the level of detail in the recorded triage information, which can vary.

The estimates given above exclude near-drownings where no hospital-based medical treatment was sought. The NSW Health website reports that the 2001 Child Health Survey found that "...overall, one in eight (12.4%) children aged 0-12 years were reported to have been rescued from drowning... By far the most common places from which children had been rescued were swimming pools (62.5% of rescues)."

Ross et al (2003) report on a survey by the Australian Paediatric Surveillance Unit (APSU) of near-drownings in 0-4 year old children who presented to child health specialists for the three years from 1994 to 1996. Australia wide, 169 cases of near-drowning were identified as well as 55 fatal immersions. Thus for children presenting to child health specialists, there are approximately three near-drownings for every fatality. Of the 169 near-drownings identified by Ross et al, 82% (139) occurred in or near the home, and the most common sites were private swimming pools (93 cases or 55%); four cases of near-drowning occurred in wading pools and three cases in separate outdoor spas.

Table 1.1: Means of access to private swimming pools in near-drowning cases reported to the Australian Paediatric Surveillance Unit 1994–1996

Means of access to pool	Type of fencing reported by parent/carer (N = 93)		
	Fenced (type not specified)	Unfenced	Unknown or unspecified
With parent	9	–	10
With other child	3	–	2
Lock broken	–	–	3
Gate left open	3	–	4
Through house door	2	–	1
Climbed over fence	2	–	3
Unfenced	–	19	–
Unknown	–	–	32
Total	19	19	55

Source: Table 1 in Ross et al (2003)

Considerable research has been undertaken into drownings of very small children (up to five years of age), the group of most relevance for the Act. It has

been found that the rate of drownings varies with age. Research by Williamson et al (2002) on 82 drownings of children aged five years and under spanning the years 1995 to 2001 indicates that 40% were aged two years, emphasising the heightened level of risk for these children. The incidence of drowning is significantly higher for boys than for girls.

Statistics in a report on the 2004-07 National Water Safety Plan by the Australian Water Safety Council (AWSC, 2004) suggest that nationwide fatality rates due to drowning have reduced during the last decade and the reduction is significant for small children, from 58 in 1998 to 35 in 2003.

State-based statistics (see Table 1.2) show a longer-term downward trend in backyard pool drownings, with a sharp fall one year after the introduction of the Act.

The reduction in aggregate fatality rates is encouraging given that the number of swimming pools has risen over the same period. Based on an assessment by Smith (undated), it is estimated that in the 13 years from 1991 to 2003, around 100,000 in-ground pools were installed in NSW. This represents an increase of about 50% on the number of pools in 1991 (though it is much more difficult to estimate the size of the stock of pools than it is to estimate new pools). Other things being equal, this would increase the exposure to risk of drowning.

Table 1.2: Historical trend of drownings of children aged 0-5 years in NSW

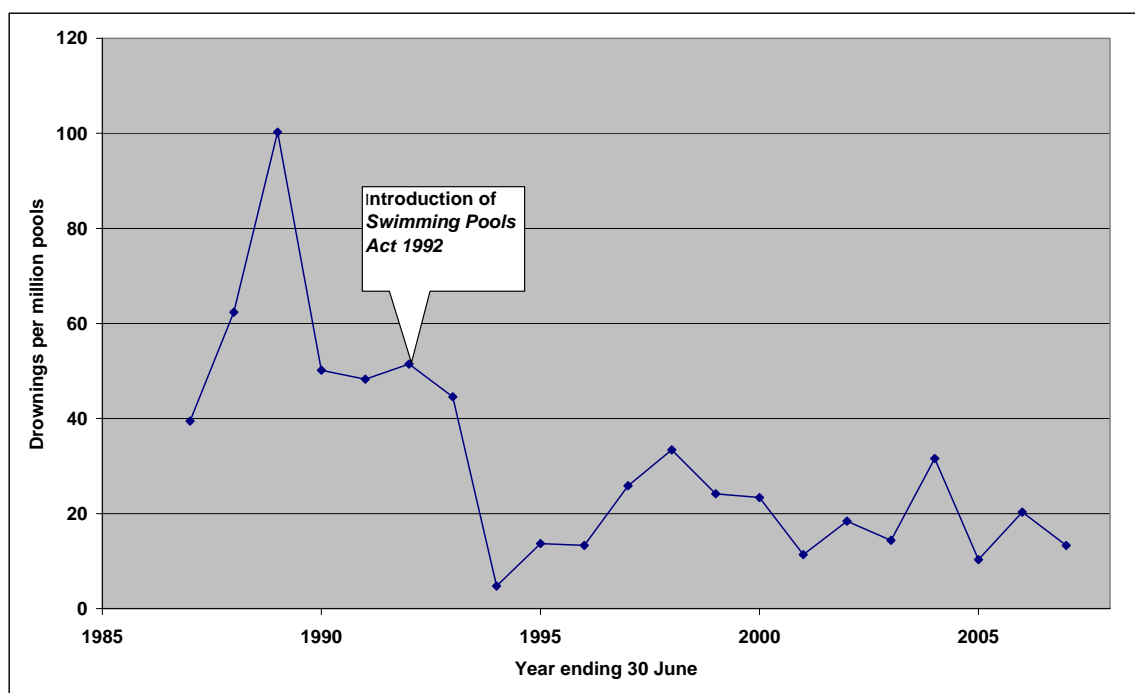
Year ending 30 June	Number of 0-5 year olds who drowned in private swimming pools
1987	6
1988	10
1989	17
1990	9
1991	9
1992 ^a	10
1993	9
1994	1
1995	3
1996	3
1997	6
1998	8
1999	6
2000	6
2001	3
2002	5
2003	4
2004	9
2005	3
2006	6
2007	4

Source: Royal Life Saving Society of Australia. Data for recent years may need to be adjusted as further coroner reports are issued on toddler drownings

Note: (a) 1992 was the year that the Swimming Pools Act was introduced

The annual data on drowning in table 1.2 were normalised by the estimated number of swimming pools in NSW⁵ as a proxy for the exposure of small children to swimming pools. The results are graphed in figure 1.

Figure 1: Drownings of children aged 0-5 years per million swimming pools



It is difficult to identify with precision the factors driving the apparent reductions in drowning rates. However, it is almost certain that improvements in barriers (both in number and safety performance) have played a big part.

Data collected by individual States reveal a drop in fatality rates over a period when there have been more stringent requirements for barriers and more active enforcement programs by local councils. Recent analysis supports the view that reductions in pool drowning rates are a direct consequence of improvements in barriers.

1.3 The NSW swimming pool legislation

The NSW swimming pool legislation is designed to enhance safety in and around swimming pools by restricting access to swimming pools by small children. All States and Territories in Australia have enacted legislation in relation to restricting access to swimming pools. However, the legislation differs significantly across the States and Territories.

The legislation in NSW comprises the *Swimming Pools Act 1992* and the *Swimming Pools Regulation 1998*. In addition, the Regulation calls up the Australian Standard AS1926-1986: *Fences and Gates for Private Swimming Pools* (AS1926-1986).

⁵ Estimates for the number of swimming pools in NSW have been derived from conversations with Mr B Smith and the undated paper prepared by him (see bibliography) for historical data, and quarterly statistics presented in issues of *Pool and Spa Industry Review* since October 2004

The Act applies to swimming pools (both outdoor and indoor) on premises on which a residential building, a moveable dwelling, a hotel or a motel is located. A swimming pool means any excavation or structure that can be filled to a depth of 300 mm or more and that is principally designed to be used for swimming, wading, paddling or other human aquatic activity.

The basic requirement for residential properties is that a child-resistant barrier, (a barrier that complies with Australian Standard AS 1926-1986), surrounds a swimming pool.

There are some exemptions, but generally the barrier must separate the pool from any residential building and from adjoining land.

A wall of a residential building can constitute part of the barrier, provided the wall contains no door or window through which access may be gained at any time to the pool (section 19 of Act).

The requirement in regard to separation from residential buildings does not apply in the case of pools constructed before 1 August 1990 ('existing' pools), nor to pools on properties smaller than 230 square metres⁶, provided access from the building to the pool is restricted by means of child-safe doors and windows (standards are set out in clauses 4 and 6 of the Regulation). For pools with these exemptions the wall of the residential building is allowed to form part of the pool barrier.

There is no requirement for a barrier to surround a pool where a pool is located on a large property (more than 2 hectares in area) or on a waterfront property. Access to pools from residential buildings on these types of properties must be restricted by means of child-safe doors and windows in the same way as for 'existing' pools.

The requirements for pools on premises with moveable dwellings, hotels and motels are broadly similar to the requirements outlined above for pools on residential properties. The two major differences for these types of pools are that the Act requires that the barrier must be located immediately around the pool and not contain any structure that is not completely ancillary to the pool, such as diving boards. There are no such requirements for private residential pools.

Access to indoor swimming pools must also be restricted in accordance with prescribed standards, set out in the Regulation.

There is an exemption to the requirement for a child-resistant barrier in the case of spas. However, spas must be covered by a child-safe structure that is fastened by a child-resistant device.

In addition to these automatic exemptions, a council can grant exemptions from barrier requirements that are impracticable or unreasonable in particular cases (section 22 of the Act).

⁶ The Act notes that this is the smallest area on which a dwelling-house may currently be erected.

Section 24 of the Act provides for a 'certificate of compliance' to be issued by the council on request by the owner in regard to a swimming pool that complies with the legislation.

The Act provides that a pool barrier must be maintained in a good state of repair and that gates or doors be kept securely closed when not in use (sections 15 and 16 of the Act). Where two or more swimming pools are in close proximity they are treated as a single pool for the purpose of the Act (section 21).

The Act also contains requirements for warning notices to be erected near swimming pools (section 17).

Councils have powers and responsibilities under the Act. Section 5 of the Act sets out the general duties and each council is required:

- '(a) to take such steps as are appropriate to ensure that it is notified of the existence of all swimming pools within its area, and*
- (b) to promote awareness within its area of the requirements in relation to swimming pools.'*

Councils can appoint inspectors (section 27 of the Act). Inspectors have certain powers of entry (section 28 of the Act) and the Act provides that an authorised officer (within the meaning of the *Law Enforcement (Powers and Responsibilities) Act 2002*) may issue search warrants (section 29 of the Act). A council can issue a direction to bring a pool into compliance and the pool owner must comply with the direction (section 23 of the Act). The Land and Environment Court can order compliance (section 30 of the Act). An inspector can serve a penalty notice for certain prescribed offences against the legislation (section 34 of the Act). All offences to the legislation are to be dealt with summarily in a Local Court (section 36 of the Act).

Standards for barriers are set out in the Regulation and AS1926-1986.

Where a pool is exempt from the general requirements, doors and windows that provide access to the pool are required to be 'child-safe'. However, the definition of child-safe in the Regulation does not include the requirement for a door to be self-closing, self-latching and open outwards (as is required for gates by AS1926-1986).

2. General comments

This chapter provides some background material and broad concepts that are relevant for the review.

2.1 Definitions

The following terms are taken from Barker et al (2003) and are used in this report.

Perimeter fencing - the boundary of the house allotment has a fence restricting access to the property by a toddler, but there is no restriction of physical access for toddlers from the house to the pool. An example is a dividing fence around a residential block.

House containment - the only fence restricting access to the pool is perimeter fencing, but all doors and windows in the house restrict access to the pool by a toddler.

Three-sided Fencing - a fence or building wall restricts access to the pool by a toddler, but there is restricted access via a house-door from the house to the pool.

Four-sided Fencing - a fence or building wall restricts access to the pool by a toddler and there is no direct door access from the house to the pool, but it may include a window. This is contemplated by section 19 of the Act.

Where a wall of a building is used as part of a pool barrier the difference between three-sided fencing and four-sided fencing is that in the former case restricted access is allowed through child-safe doors, while in the latter case no door access is allowed at all.

Isolation Fencing - as for four-sided fencing, except all ancillary structures (not related to the function of the swimming pool) are excluded from the pool area and a maximum distance between the pool fence and the edge of the pool is prescribed. Setting a maximum distance discourages other activities.

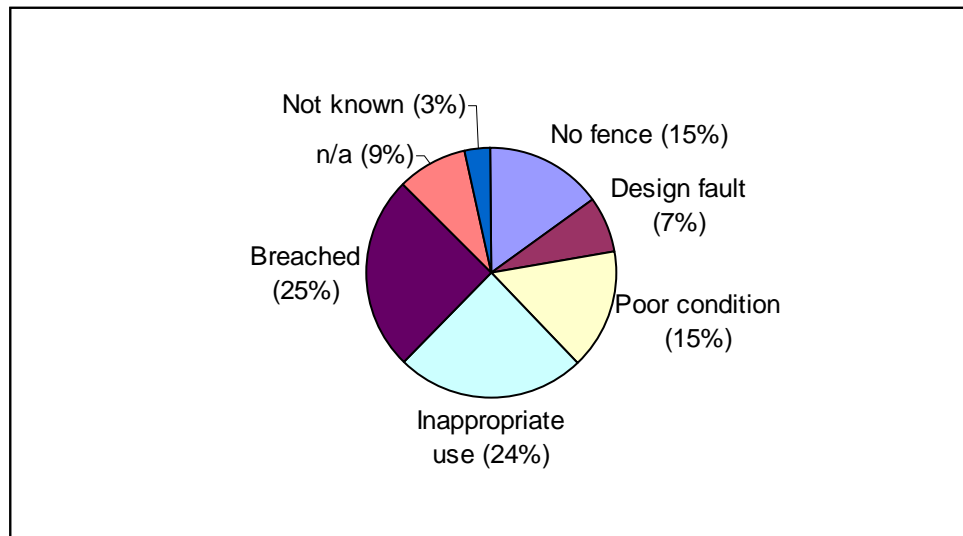
2.2 Failure of barriers

The findings of the research conducted by Williamson et al (2002) on 34 child drownings in swimming pools between 1995 and 2001 highlight that most drownings occur when a number of contributing factors are present at the same time, even though singly they may not have been sufficient to result in drowning.

For the barrier itself, the factors that contributed to the 34 drownings can be summarised as follows (refer also to figure 2):

- Five drownings occurred in unfenced pools, two of which were in the process of being built.
- Poor condition of the pool fence contributed to five drownings.
- Eight drownings were associated with inappropriate usage (for example, gate not secured). This statistic shows that human error is individually the greatest contributing factor to child drownings.
- In three cases the child managed to gain access to the pool due to a design fault in the barrier or gate.
- There were nine cases in which the child was able to breach the safety barrier - three by climbing over the fence to the pool or the fence to a neighbouring pool, three are thought to have climbed over the fence or crawled under the gate, two cases where another child opened the gate and let them in and one case where the child is thought to have opened the gate themselves.

Figure 2: Proportion of pool drownings (1995 - 2001) in which pool fencing/gates contributed to the fatality⁷



Williamson et al structured the analysis by identifying precursor events and contributing factors. Contributing factors included:

- inadequate adult supervision – a factor in all cases with no adult at the scene in 76% of cases
- location - 21% of children were deemed to be in dangerous locations, in or near the water
- pool fencing – factor in 91% of cases (see summary before figure 2)

For precursor events, the child's own behaviour was noted in all but one case (97%) involving the child accidentally falling into or deliberately entering the pool. In 35% of cases, the action of the child was combined with behaviour by adults or other children (eg, leaving the gate open or leaving the child alone).

Based on the analysis of contributing factors and precursor event Williamson et al were able to identify four distinct patterns.

Pattern 1

The primary pattern to emerge (38% of cases) was characterised by a combination of inadequacy in pool fencing, lack of adult supervision and child behaviour.

Pattern 2

For the second pattern (26% of cases) there was a pool fence in apparently good condition and the drowning occurred due to a lack of adult supervision in combination with access to the pool provided by an adult or other child.

Pattern 3

This pattern was observed in 24% of cases and again involved a pool fence in apparently good condition, but the child gained access to the pool by breaching the pool barrier (through the fence itself or the gate).

⁷ n/a refers to children that were already in the water

Pattern 4

The final pattern (9% of cases) occurred when the child was already in the water but where there was a subsequent failure in adult supervision.

A team from the Queensland Injury Surveillance Unit (QISU) (Barker et al, 2003) has used the following framework to analyse the factors that contribute to small children drowning in pools.

Static failure of the barrier

This refers to defects in the design or construction or maintenance of the barrier. Examples include the complete absence of any fence, missing panels from a fence, and a gate that no longer self-closes or self latches. Failure in static compliance will be consistently picked up in council inspections.

Dynamic failure of the barrier

Even if a barrier is statically compliant, it can still fail due to actions by adults that provide a breach for a young child to gain access to the pool. Examples include not securing a gate or a door (perhaps by wedging or tying it open) or leaving objects near to the barrier that a child can use to climb over.

The defining feature of dynamic failure is that it is a temporary condition that is responsible for the hazard, and not an intrinsic problem with the barrier itself. This might be addressed by increased education campaigns.

Primary access hazard

QISU has introduced the concept of primary access hazard to describe hazards in the situation where a barrier is in compliance both statically and dynamically. In drownings that occur as a result of primary hazards the child was left near the pool (or at least with unhindered access to the pool). The risks associated with primary hazard are heightened when a child's play area is not separated from the pool.

Analysis of Queensland data by QISU has indicated that children are at significantly greater risk due to primary hazard associated with three-sided pools compared to four-sided pools.

Secondary access hazard

The secondary access hazard occurs in the case of a barrier that has static compliance but fails dynamic compliance due to a temporary condition such as the gate left unsecured.

2.3 Use of building wall as part of barrier

This section focuses on the issues associated with incorporating the wall of a building in a swimming pool barrier. Although these matters are raised in various other places in this report, their central importance in swimming pool safety and the high level of misunderstanding and contention justifies a separate section.

In fact there are two separate though linked considerations associated with the use of a building wall as part of a barrier, and these relate to the distinction between the definition of primary access hazard and secondary access hazard.

In terms of secondary access hazard, doors in a wall that forms part of a barrier impose higher risks than gates within standalone barriers. Doors in a house

presumably are used for a wider range of purposes than just providing access to the pool, and are more likely to be left open, or at least unsecured, when not in use. Doors constitute a higher risk than windows since it is generally easier for small children to gain access through a door than a window. Also, there is a view that doors suffer more damage (partly from more intensive use) than gates and require more maintenance, and this in turn increases the potential for compromising the security of pool safety systems (though this is more correctly regarded as static non-compliance).

Notwithstanding the potential for increased hazards in pools with three-sided fencing the WA Parliamentary Inquiry (2002: Finding 6) concluded that:

The Committee was not provided with any evidence to suggest that Category 1 - isolation fencing [child-resistant windows but no doors] was more effective than Category 2 - barrier fencing [that includes child-resistant doorsets] at reducing the incidence of young children drowning. To the contrary the information indicated that Category 2 - barrier fencing was just as effective a safety barrier as Category 1 - isolation fencing.

The WA Parliamentary Inquiry preceded the publication of Queensland research (QISU 2003 and Barker 2003) that provided evidence suggesting that the risk of toddler drownings due to unintended access (breach in static compliance) is almost three times greater for doors in three-sided fences than for gates in four-sided fences (relative risk estimated to be 2.88).

In terms of primary access hazard, QISU (2003) found that where toddlers had been given access to the pool yard the risk of drowning in pools with three-sided fencing was almost 11 times the risk in pools with four-sided fencing (relative risk estimated to be 10.98). In fact no child had drowned in this situation in pools with four-sided fencing.

Standards Australia has recently released a new version of AS1926.2-2007 (*Australian Standard on Swimming pool safety, Part 2: Location of safety barriers for swimming pools*). The former Option C, which involved the use of the wall of a residential building as part of a pool barrier, has been renamed in the new version 'barriers with child-resistant doorsets'⁸ and this is referenced in clause 4.3. The preface to the Standard states 'As this option is subject to individual State and Territory regulations, Option C ... has been placed in Appendix A for ease of regulators ...'

A note to Appendix A of AS1926.2-2007 advises that a 'four-sided barrier with child-resistant doorsets that allows access from a building is a less safe option' than a 'four-sided barrier that allows access to the pool only via purpose-designed pool gates'. An earlier draft version of AS1926.2 intended to provide a total prohibition on access to a pool from a building (even with child-resistant doorsets) in view of advice from child health authorities and, in particular, the evidence from the analysis reported in QISU (2003a). The note to Appendix A goes on to advise that this option should only be permitted when circumstances preclude a four-sided barrier without child-resistant doorsets in cases such as an indoor swimming pool or pools on unusually small properties. Notes to the

⁸ Child-resistant doorsets are defined to be compliant with AS1926.1-2007

Standard contain information and guidance, and are not an integral part of the Standard.

Part 2: The case for Government intervention

Part 2 of this report focuses broadly on the outcomes from government intervention in swimming pool safety rather than the detail of how these outcomes are to be achieved, which will be covered in Part 3 (Part 3 also contains discussion on specific outcomes).

The primary question to be answered in Part 2 is: should government intervene in swimming pool safety? Secondary questions relate to: what is the 'best' form of intervention, and how 'far' should the intervention go? Part 2 will report on the findings of the analysis: further background can be found in Appendix 2.

The review has adopted a commonly used approach in such reviews structured on the basis of the following three criteria:

- effectiveness
- efficiency
- equity

For the sake of completeness, Part 2 includes a section on competition impacts from the swimming pools legislation.

3. Effectiveness

In order to justify government action, it is not sufficient to identify a problem, or even to quantify the extent of the problem. It is also necessary to demonstrate that government action will be *effective* in reducing the problem: in other words government action must make a positive difference.

The primary question of interest is: are the probabilities of drowning different for the different types of pool barrier, and how can this be quantified?

The analysis undertaken for this review compares the drowning rate for pools with different types of fences and is based on three reports on substantive quantitative research that has been conducted in Australia. Unfortunately, none of these studies was conducted in NSW and the applicability of the findings to NSW may be questioned. However, our view is that these studies are the only rigorous assessment of the effectiveness of different types of pool barrier and that it is valid to apply the findings to swimming pools in NSW provided that the potential for errors due to differences between states is kept in mind:

- Pitt and Balanda (1991) – Queensland: Fenced versus non-fenced pools
- Stevenson et al (2002) – WA: 4 sided versus three-sided pool fencing (status of child-safe doors and windows unknown)
- Barker et al (2003) – Queensland: isolation pool fencing (four-sided) versus three-sided pool fencing (with child-safe doors and windows)

Each of the reports compares the safety performance for two types of pool barrier by means of the relative risk statistical parameter RR. As its name implies, relative risk is the ratio of the probabilities of the occurrence of drowning

in pools with one type of fence (denoted a type 2 fence) and a second type of fence (type 1 fence) respectively,

Table 3.1 provides a summary of the studies. Each of the studies found statistically significant differences (improvements) in their comparison of performance between the two types of pool fence at the 95% significance level⁹. In other words, we can be 95% sure that the differences found in the rates of reported drownings were not due to chance but were truly associated with the difference in type of pool fence.

Table 3.1: Summary of research

Study	Pool fence		Number of reported immersions or drownings		Estimate for relative risk	Comments
	Type 1	Type 2	Type 1	Type 2		
Pitt and Balanda (1991)	non-fenced	fenced	47	22	3.76	Immersions, not drownings
Stevenson et al (2002)	three-sided - unknown status on doors and windows	four-sided	35	15	1.78	All 15 drownings in four-sided pools were due to gate propped open or ineffective gate latching system
Barker et al (2003) (a) unintended access	three-sided + child safe doors & windows	four-sided	11	7	2.88	All drownings occurred due to defective gates or doors
(b) primary access hazard	three-sided + child safe doors & windows	four-sided	6	0	10.98	All children who drowned were allowed into pool area by an adult

However, epidemiological studies such as the research cited above are in effect statistical analyses and while a significant relationship may be observed it is not possible to identify cause and effect. The observed difference in immersion or drowning rates between pools with different types of fence may in fact be actually driven by another factor that happens to be correlated with the type of pool fence on an 'incidental' basis.

The prime candidate for such a factor is level of adult supervision. It is no exaggeration to say there is universal agreement that there is no substitute for strict adult supervision of young children to ensure water safety. This consensus of views in regard to supervision was reinforced in the submissions received during this review.

⁹ This can be seen from the fact that the 95% confidence interval does not contain zero for any of the studies.

The improved safety performance (lower drowning rate) observed for the type 2 fences in the comparisons in table 3.1 may be claimed, quite plausibly, to have less to do with better fences than with better supervision. For example, it could be hypothesised that parents who invest in superior pool barriers will also be more conscientious in keeping an eye on their children. If this is indeed the case, then government would be better advised to spend more resources on public awareness campaigns rather than requiring pool owners to spend resources on meeting more stringent pool fence standards.

On the evidence of currently available information there is no objective basis for rejecting outright the above hypothesis. The observed patterns could be explained by incidental correlation between fence quality and level of adult supervision. However, in our view this is an unsatisfactory explanation and fails as a sound basis for policy making. While there is no argument that proper adult supervision is the best defence against toddler drowning the reality is that there remains the real risk of lapses even in the most attentive parents.

It has been argued in a number of submissions, particularly those from some members of the public, that pool owners may be lulled into a false sense of security through believing that the pool barrier will always be effective in denying access to the pool by small children, and be less attentive in their supervision. One submission argued that there is some evidence that this has occurred but the evidence is not compelling.

The above discussion relates to effectiveness of pool barriers that meet the statutory requirements, in other words that all pools are fully compliant. The idealised level of effectiveness, as quantified by the abatement in risk of toddler drownings, will be reduced in practice to the extent of non-compliance both in terms of the number and the seriousness of the non-compliance.

The research reported in van Weerdenburg et al (2003) demonstrates that there is substantial non-compliance with the Act. The study also found convincing evidence that the actual level of non-compliance is determined in large part by how zealous the council is in inspecting pools. For example, two councils in the study that had no active inspection programs recorded non-compliance rates in excess of 50%, while a third council that had conducted routine inspections recorded non-compliance rates below 5% for pools with known compliance status.

It should be noted that the Act provides for certain powers of inspection to councils, including powers to enter private property for the purpose of monitoring compliance. However, the Act at the moment does not mandate councils to undertake inspections. We return to this matter in Part 3 of this report.

4. Efficiency

Efficiency as applied to a review of government intervention is about getting the most value for your dollar or, in economics jargon, allocating community resources to their most valued use. Basically, government intervention can be justified only if it makes the community 'better off' in some sense. The notion of better off is made definite by the requirement that benefits should exceed costs.

To some the idea of applying such economics based criteria to matters of life and death is abhorrent. The death of a child by drowning is an unqualified tragedy, and the use of economics to evaluate government spending in no ways detracts from the grief and loss associated with such events. However, governments are charged with making decisions that involve resources (both taxpayers funds directly and private costs through regulation) to be used for reducing risks to public health and safety. In this they have to weigh up the returns from expenditures in a range of applications. Resources spent on reducing risks of drowning in residential pools have an opportunity cost: these resources have an alternative use in saving lives elsewhere, or in increasing community welfare in some other area. A major aim of a review such as this one is to provide a sound basis for policy development and decision making that maximises the benefits for NSW as a whole.

Based on consultation with industry and figures provided in one submission it is estimated that the cost of a pool fence for a standard size pool on a block of 'average' difficulty is \$3000, or an annualised cost of \$172 over the life of the fence.

It has not proved possible to arrive at estimates for the increase in costs for pool fences if any of the exemptions were removed for new pools, though the monetary costs may be expected to be relatively low. The greater cost to pool owners may well be in some loss in the pleasure and amenity they derive from a swimming pool. In extreme cases, where the property is 'difficult' or the layout of buildings imposes constraints on pool location, the requirement for a four-sided pool fence may mean that a swimming pool is unable to be placed on the property.

The benefits of more stringent regulation are realised as reduced drownings and the consequences of non-fatal immersions. The Act currently requires four-sided fences for all non-exempt pools constructed since 1990 and three-sided fences with child safe doors and windows for pools built before then. Consistent with the treatment of effectiveness in Chapter 3 of this report, the approach adopted in this section will assess the benefits (reduction in risk) for the specific case of going from a three-sided fence (with child-safe doors and windows) to a four-sided fence for a representative pool.

Of the three research reports discussed earlier in Chapter 3, the one that most closely approximates the difference between new and 'existing' pools under the Act is the study by Barker et al (2003) who estimated the risks associated with static non-compliance for three-sided fences to be 2.88 times greater than the risks for four-sided fences. This corresponds to an annual reduction of 24 drownings per million swimming pools (making a mid-point assumption for the number of pools in NSW with three-sided fencing).

To this must be added the reduction in near fatal immersions. Based on data extracted from the NSW Hospital Admission Collection (NSW Health 2005), there were an average of 36 hospitalisations per year of children aged 0-4 years¹⁰ for drowning and submersion while in, or following a fall into, a swimming pool over the three year period 2002/03 to 2004/05. Over the same period there were 5

¹⁰ There were 7 hospitalisations recorded over the three years in the 5-9 years old age group, suggesting that including 5 year olds would increase the 36 hospitalisations per year to at most 38 per year, though more likely 37 per year.

fatal drownings per year. This suggests on average 6 non-fatal hospitalisations for every fatality associated with a home swimming pool. While it is not known how serious the health consequences were for these non-fatal hospital admissions, data from various sources suggest that the number of immersions in home swimming pools that result in severe brain damage is approximately half the number of fatalities.

It is emphasised that the real benefits from improved pool barriers are realised as a combination of the reductions in pool drownings and in the severe neurological sequelae associated with non-fatal immersions, as discussed above.

However, it is often an aid in policy making to express these benefits in monetary terms using the concept of a statistical value of life (VSL) and measures derived from the VSL such as the disability adjusted life year (for costs of morbidity). VSL does not attempt to state what the life of a person is actually worth, rather it is a measure of the trade-offs that society might make between expenditures on policies that reduce the risk of death (and injury or ill health) and the expected reductions in mortality and morbidity. This reflects, at the community level, the trade-offs that individuals make in their day-to-day lives of money against risk, for example by driving rather than travelling by air which is safer (and faster) but more expensive.

Appendix 2 provides additional discussion on these matters. For the purpose of this review we have adopted a VSL of \$2.5 million following the recommendation in the Enhealth Guidelines (DoHA 2003a). The total cost for NSW of immersions of young children in home swimming pools each year is then estimated at approximately \$23 million (in present value terms). The monetary valuation of the improvement in safety between three-sided fencing and four-sided fencing for each pool is \$92 per year for each pool (assuming the mid-point of the range for three-sided pool fences).

The estimated value of benefits is considerably less than the annualised cost of a pool fence of \$172. It may be noted that using the rather less conservative assumptions in the base case summarised in Appendix 3 (DoHA 2003b), the estimated benefits outweigh the costs.

However, it is invalid to make the comparison of the benefits with the cost of the fence in total, but rather the difference in costs between a three-sided fence and a four-sided fence. While there are no data on the cost difference, we suspect that the difference in dollars could be quite low in many cases as discussed earlier. Overall, it would seem that the analysis presented in this section supports the requirement in the Act for four-sided fences on new non-exempt pools.

The conclusions are rather different in the case of upgrading an existing three-sided fence to a four-sided fence. In this case, the old fence may not be able to be used at all. For example, a style that matches the existing fence may no longer be available, or a four-sided fence may necessitate some significant changes in landscaping or configuration of the pool area. In fact there may be an additional cost in demolishing the existing fence and its removal. If, in effect, a new fence needs to be installed, then the above analysis suggests that this cannot be justified on cost benefit (efficiency) grounds.

The analysis outlined above provides a basis for assessing the merit of additional resources to promote compliance. At the moment, the total annual cost of immersions in swimming pools is estimated to have a monetary valuation of approximately \$23 million. A substantial part of this total cost is due to non-compliance.

The costs of a one-off inspection of all 300,000 pools in NSW are estimated to be in the range \$15 million to \$25 million (see table 9.1). If the inspections were carried out once every two years, then the upper end of the range is \$12.5 million per year. This level of expenditure would be justified if it delivered reductions in the current rate of immersions of around 50 per cent (of \$22 million). Are these reductions feasible? There are two parts to the answer: the number of immersions due to non-compliance; and the effectiveness of inspections in improving compliance rates.

Williamson et al (2002) analysed the drowning of 82 children aged 0 to 5 years in home swimming pools over the years 1995 to 2001. They identified defects in the fence as a contributing factor in 34 of the cases (41% of the total), including 15% of pools that had no fence at all. If these percentages still apply today, then it suggests that even under full compliance with the Act almost 60% of the current number of drownings would continue to occur.

Unfortunately, even a well-designed inspection regime may not achieve full compliance. One council staff member indicated that the council had considerable difficulty in compelling pool owners to make the necessary repairs or changes to achieve compliance even, in some cases, after three visits. Also, it is possible only to check compliance on the day of the inspection. Over time, static compliance of pool fences (and in particular gates and latching devices) will deteriorate. The impact on dynamic compliance with even the best inspection regime is advisory only.

The conclusion would appear to be that the analysis does not support substantial resources being allocated to improved inspection and related council activities.

5. Equity

Equity is a poorly defined term. The preferred use by many economists relates to fairness in the sense that:

- individuals are charged the same for the same good (or service); and
- resource costs incurred are paid by the user who is responsible for incurring the costs.

There appears to be no issue in regard to the operation of the Act in regard to the first criterion.

The question of user pays arises if councils incurred additional costs in relation to swimming pools, for example to conduct regular inspections or to establish a swimming pool register. User pays is discussed further in Part 3 (Chapter 8) of this report.

There is a further instance of 'costs', being the risk to small children of drowning in home swimming pools. Some pool owners, and others, have argued that pool

owners without children should be exempted from the requirements for pool barriers. In effect, these pool owners consider that they are providing a community service for the benefit of the general public in having a barrier since it provides enhanced safety for other members of the public (children of other adults) while they (the pool owners) derive no benefit. This argument can be criticised on two points:

- a high proportion of pools with childless owners are visited by children (see for example Mitchell and Hadrill 2004); and
- there is a widely accepted principle that the costs of ameliorating a public risk should be met by the person or firm that generates that risk.

There is a different concept of equity (often at odds with the definition stated above) that is tied up with the notion of access to certain goods or services that society considers should be open to the enjoyment of everyone. In this regard the costs associated with the statutory requirements for a pool barrier may mean that a swimming pool is out of the reach of some individuals for purely financial reasons. However, it is difficult to argue that possession of a swimming pool is in any way an inherent right for all members of society or that it constitutes an essential service.

6. Competition impacts

Paragraph 5(1) of the National Competition Agreement states:

‘The guiding principle is that legislation (including Acts, enactments, Ordinances or regulations) should not restrict competition unless it can be demonstrated that:

- (a) the benefits of the restriction to the community as a whole outweigh the costs; and
- (b) the objectives of the legislation can only be achieved by restricting competition.’

The conditions set out under (a) and (b) in paragraph 5(1) are commonly referred to as the *public benefit test*.

A strict interpretation of paragraph 5(1) is that any form of regulation restricts consumer choice and therefore impacts on competition. The reason is that regulation prevents certain commercial transactions that would be entered into by a producer and a consumer to their apparent mutual benefit in the absence of the regulation. Our personal view is that this interpretation is difficult to support, but have taken it as given, for the purpose of this report, that competition is restricted by the legislation.

The discussion provided earlier in Part 2 of this report demonstrates that any loss in the level of competition as a result of regulating for swimming pool safety is more than outweighed by the gains in reduced incidence of drowning and near-drowning of small children. Further, the evidence provided supports strongly a case that the level of these benefits cannot be achieved by other means that do not impact on competition.

It is concluded that the *Swimming Pools Act 1992* and the regulation passes the public benefit test.

Part 3: Detailed assessment of the provisions in the Act

Part 3 of the report discusses certain provisions in the Act that were raised as issues during the initial phase of the consultation program, and that subsequently were commented on in submissions responding to the discussion paper.

The discussion for each provision includes:

- a statement of the issue;
- an outline of background information including the current requirements in the Act;
- a summary of the submissions received;
- an assessment based on the above; and
- a suggested recommendation.

7. Coverage of the legislation – premises and exemptions

7.1 Application of the legislation

Issue

It is necessary to define which structures the Act applies to, both for administrative reasons and to ensure that requirements are not invoked in cases where they are unnecessarily costly or unlikely to deliver significantly improved safety.

Background

The Act currently applies to pools on properties with residential buildings including moveable dwellings, hotels and motels, but excludes pools on public land.

The Act defines a swimming pool to mean ‘an excavation, structure or vessel:

- (a) that is capable of being filled with water to a depth of 300 millimetres or more, and
- (b) that is solely or principally used, or that is designed, manufactured or adapted to be solely or principally used, for the purpose of swimming, wading, paddling or any other human aquatic activity.’

The Act also covers spa pools (but not spa baths), though there are provisions for an exemption for barriers to spa pools.

Submissions

There have been a small number of calls to extend the definition of swimming pools to cover variously:

- pools on commercial or industrial premises
- pools on public land or public pools such as council pools
- structures that can be filled with water to a depth of less than 300 mm¹¹

¹¹ The issue of minimum depth of water was raised in the context of a defence to prosecution under section 25 of the Act in the case of pools under construction if the depth of water was less than 300 mm.

- water bodies that are not expressly designed for the purpose of swimming and related water recreational activities, such as fish ponds or natural water bodies.

Assessment

In general, drownings could occur in any of the situations in the bullet list above, and requirements for barriers would reduce that risk. However, reductions in risk are not costless and it is necessary to weigh up the benefits against the costs. Unfortunately, the balance between costs and benefits can only be done qualitatively in the absence of objective evidence.

The central consideration for the Act is that pools on residential land pose specific risks due to a combination of the number of small children who frequent them, the types of activities undertaken near the pool (including non-water based recreation), and the general environment near the pool. These conditions are unlikely to occur for pools on commercial properties where children are not commonly found.

In the case of public pools, the imperatives for intensive oversight of small children are no less strong than is the case for backyard pools. Public pools are frequented by many more people and generally have formal supervision. This by no means eliminates all risk. The difficulty is that it is impracticable to have the sort of barrier requirements specified in the Act, with the possible exception of 'wading pools', because of the consequent impediments to the movement to and from pools by other pool users.

It is true that very small children have drowned in water less than 300 mm deep, but once again in our view these incidents have not been in situations where the provisions in the Act might have prevented the drowning. The greatest risk of drowning in very shallow water is for the very smallest children and these are generally not the highest risk age group for pool drownings due to lower mobility. It may be noted that AS1926 has adopted 300 mm as the threshold depth for swimming pools covered by the Standard.

Finally, an argument could be made that children might drown in bodies of water that are not meant for swimming or wading, but this opens up a very wide range of structures that would need to be protected. Importantly, unlike swimming pools these are water bodies where children are far less likely to have had prior experience of playing, so the attraction to enter would be expected to be less. Also they are largely not associated with the sort of social and recreational activities (including non-water related activities) that are commonly found near swimming pools.

A related issue was also raised as to whether the definition of a swimming pool in the Act referred to the water in the pool or the structure that contained the water. The question arises in the case of above ground pools whether the wall of the pool (if it meets the standards set out in the regulation) can be regarded as a barrier for the pool. Legal advice is that the 'pool' is in fact the structure, so that the wall of an above ground pool cannot be taken to be a pool barrier.

Recommendation 1: (section 4 of the Act)

It is recommended that the current definition for 'swimming pool' be retained and that there is no change to the scope of application of the Act. Consideration could

be given to clarifying that the definition for swimming pool refers specifically to the structure or the vessel itself to remove confusion.

7.2 Exemptions

Issue

Exemptions in the Act serve to vary pool barrier requirements under specified circumstances. The motivation for including exemptions is to provide a defined level of flexibility to avoid high costs in cases where the overall requirements are unreasonable or difficult to implement, or where the expected gains in pool safety are considered doubtful, or a combination of both.

Exemptions were a major point of disagreement during the debate on the swimming pool legislation in the early 1990s. The question of whether exemptions are appropriate continues to be the subject of strongly split views within the community.

Background

The basic requirement in section 7 of the Act is for a swimming pool on private residential land to be 'at all times surrounded by a child resistant barrier:

- (a) that separates the swimming pool from any residential building situated on the premises and from any place (whether public or private) adjoining the premises, and
- (b) that is designed, constructed, installed and maintained in accordance with the standards prescribed by the regulations.'

The Act provides for exemptions to certain swimming pools on properties with a residence as follows:

- 'Existing' swimming pools (those constructed or commenced before 1 August 1990) and pools on very small properties (of area less than 230 square metres): 'The child-resistant barrier surrounding the swimming pool is not required to separate the swimming pool from any residential building situated on the premises so long as the means of access to the swimming pool from the building are at all times restricted in accordance with the standards prescribed by the regulations.' (section 8)
- Pools on large properties (of area greater than 2 hectares) or waterfront properties: a pool '... is not required to be surrounded by a child-resistant barrier so long as the means of access to the swimming pool from any residential building situated on the premises are at all times restricted in accordance with the standards prescribed by the regulations.' (sections 9 and 10)

Similar requirements to those in section 7 apply to swimming pools on premises on which a hotel, motel or moveable dwelling is located (section 12). However, the only exemption here is for 'existing' pools (section 13).

Pool safety advocates agree that four-sided pool fences (where the pool barrier separates the pool from the residential building) provide a higher level of safety than do three-sided pool fences. The legislative exemptions to the requirement for four-sided fences deliver reductions in the cost of construction, remove certain constraints in terms of landscaping, and allow greater freedom of recreational activities around the pool. The trade-off for obtaining these benefits is an increase in the risk of small children entering the water (see discussion in Chapter 4 in Part 2 of this report).

In addition to the automatic exemptions outlined above, section 22 of the Act provides councils discretion in granting exemptions to pool barriers from those requirements that are impracticable or unreasonable in particular cases.

Submissions

In broad terms, submissions from councils, advocates of swimming pool safety and professional associations favoured the removal of the exemptions. Members of the public argued to retain the exemptions, particularly with regard to the issue of retrospectivity for pools constructed to take advantage of the exemptions.

Within these broadly polarised views there were some important distinctions made between the four different exemptions.

'Existing' pools (as defined in the Act)

Councils in submissions took the overall view that 'existing' pools (those constructed prior to commencement of the Act) were now over 16 years old. They argued that it was reasonable to expect that the swimming pool barrier to have been upgraded in the intervening period of time, and that retaining the current exemption was difficult to justify. Only one council provided a dissenting view though two other councils argued for possible alterations to the current exemption rather than its removal.

The other major aspect raised in a number of submissions was that where renovations had been undertaken that impacted significantly on the pool or the surrounding area, then it was considered that the exemption should no longer apply. It was pointed out that in some cases a new pool in effect had been installed, but it was still deemed to be an 'existing' pool.

Pools on very small properties (less than 230 square metres in area)

There was rather more (though still minority) support by councils for retention of this exemption, given that the space constraints might mean that a swimming pool would otherwise not be possible.

A number of other councils felt that the difficulties of putting in a four-sided pool fence were not restricted to very small properties and that for the purpose of achieving consistent pool safety outcomes other 'difficult' properties, due to shape or topography or configuration of the residence, should also be considered for an exemption. One proposal was to make greater use of the discretion given to councils in section 22 for granting exemptions, perhaps by providing more guidance as to the criteria to be applied. On the other hand, as observed by one council in its submission, not all properties under 230 square metres in area warranted the exemption since in some cases the 'footprint' of the house on the lot might well allow a four-sided fence for the pool.

Pools on large properties (properties greater than 2 hectares in area)

There was minimal support by councils for retaining this exemption as it stands. The general view was that the size of the property should not determine the requirements for a swimming pool barrier. It was pointed out that a swimming pool without an appropriate barrier could be accessed from off the property, and there is nothing in the Act regarding the distance of the pool from the property boundary.

One suggestion was to modify the definition of 'large properties' by increasing the threshold 2 hectares and over to, say, 5 hectares and over.

One submission raised the need for the swimming pool to be in full view from the residence. In fact this requirement could apply to any swimming pool, though it is somewhat more relevant on large properties.

An opposing view was expressed by certain members of the public who argued that many large properties were likely to have other hazards for toddlers, including other water bodies. The existing requirements in the Act for large properties to have restrictions on access to the pool from the residence also afforded protection from these other hazards.

Pools on waterfront properties

The responses to requirements for pools on waterfront properties mirrored to an extent the responses in regard to large properties. Council submissions pointed out that, as with large properties, the value of the exemption depended heavily on the position of the pool on the property. A number of submissions noted that some waterfront properties are elongated with the pool remote from the water body, and subject to the same hazards of entry from adjacent land.

Once again an opposing view was expressed that the requirements in the Act also provide incidental protection for toddlers in relation to the abutting water body as well as the swimming pool.

A number of submissions suggested that the exemption apply only to pools close to the water body (say, within 15 metres).

Assessment

The relative risks of toddler drownings in pools with three-sided fencing compared to four-sided fencing have been discussed in Chapter 3 of Part 2 of this report. That discussion is relevant to the question of the exemptions for 'existing' pools and pools on very small properties.

The data on pool drownings are not sufficiently detailed to identify the type of property the drowning occurred on or whether any exemption had been granted. Nor is it known how many pool fences in total within NSW have been exempted under the above sections of the Act. Accordingly, there is no objective measure for the increased risk associated with these exemptions. In any case, the numbers of drownings when disaggregated by type of property would be so small that no valid statistical analysis would be possible.

'Existing' pools (as defined in the Act)

There are a number of arguments why existing pools might be made exempt, and these arguments generally relate to the retrospective nature of imposing requirements on 'existing' pools. This is discussed further in the following section which deals with the process of removing exemptions.

Upgrading a barrier to an existing pool to meet more stringent requirements is commonly more expensive (both in terms of direct monetary outlays and impacts on amenity, such as aesthetic and functional considerations) than is the case for a new pool. In the case of a new pool, these problems and additional costs can

be avoided to an extent through integrated design of the pool within the landscaping in such a way that it incorporates a compliant barrier.

Pools on very small properties

There are a substantial number of residential properties with an area of 230 square metres or less in the inner suburbs of Sydney. City of Sydney Council in their submission indicated that 14,236 properties in their council area fit the criterion of being a very small property, though no statistics were provided on the number of swimming pools.

The form of the exemption for pools on very small properties is the same as those for 'existing' pools. The additional costs associated with four-sided pool fences over and above the cost of three-sided fences are likely to be greater on average for pools on small properties than for pools on larger properties, though it has not proven possible to quantify any differences due to the variability in the constraints associated with very small properties. In extreme cases, the difficulties may be of a magnitude that it is impossible in practical terms to put in a fence that separates the pool from the residence. In the absence of an exemption, it would be impossible to build a pool on the block.

While recognising the potential for inconsistency in the differential treatment of very small properties and other properties where siting a pool faces unusual difficulties, the exemption as it currently applies has the major advantage of administrative simplicity and convenience.

Large and waterfront properties

The rationale for the exemptions for pools on large properties and waterfront properties is that toddlers are exposed to other hazards (including immersion in water bodies other than the swimming pool) once they are outside the residence. This in itself hardly appears to be a valid argument. The fact that small children on large or waterfront properties are, as claimed, exposed to higher levels of hazard is logically unrelated to the quantum of reduction in the risk of drowning in a swimming pool. No arguments have been presented that suggests the quantum reduction in risk should be different, on average, for pools on different properties. If an appropriate pool fence can be justified for a pool on an average block in terms of the reduced risk of toddler drowning, then a similar fence can be justified on the same basis for a large or waterfront property.

However, the requirements for restricted access from the residence to swimming pools on large and waterfront properties do have the incidental advantage that, as pointed out by pool owners, they provide a level of protection for toddlers from other hazards. The drawback to this argument is that there is no protection provided when children are playing in outdoor areas.

General exemptions

The Act provides both specific exemptions (as outlined above) and a general power for councils to grant exemptions according to judgement. There is a tension here between achieving uniformity (through prescription) and providing flexibility (leaving it up to individual councils to make determinations on a case by case basis) – this is discussed further in section 7.3 of this report on prescriptive versus outcomes based regulation. It may be recalled that a major motivation for the initial move to the uniform statewide approach embodied in the Swimming Pools Act was the realisation that the flexibility provided to councils in approving

pool barriers prior to 1990 was failing to achieve pool safety levels that met community expectations. This serves as an indication that there are drawbacks in practice to a strongly outcomes based approach to swimming pool regulation. However, it is difficult to predict to what extent removal of the specific exemptions would result in a greater use of section 22 discretionary exemptions.

Recommendation 2: (sections 8, 9, 10, 13 of Act)

It is recommended that further consideration be given to removal or amendment of the current exemptions to specific pool barrier requirements in particular situations with a view to eliminating apparent inconsistencies.

7.3 The process for implementing changes to exemptions

Issue

If any of the exemptions were to be removed or modified, then this would apply presumably to all new pools (that is, those built after the legislative changes are enacted). The issue arises as to how changes to the Act would affect swimming pools existing at the time of the enactment of those changes. Pool fences installed to be compliant with the then current requirements (including exemptions), may fail the new requirements (without the exemptions). This section deals with the transitional arrangements.

Submissions

Owners of swimming pools argued that, since they had complied with the requirements at the time of construction, it would be a form of retrospectivity to be asked to modify the pool barriers at some time in the future¹². At the very least, they should be compensated for any costs associated with upgrading to the new requirements.

Some councils disputed this contention as it applied to 'existing' pools that had been renovated or affected by major changes to the property since 1990. Other councils took a more sympathetic view acknowledging the costs that pool owners might incur in upgrading pool barriers.

The most commonly suggested means of implementing removal of exemptions include:

- exemptions would continue to apply to existing pools, so the change would affect only pools constructed after the changes are enacted (so that the issue of retrospectivity does not arise);
- providing a period of grace before previously exempt pools have to comply with the full requirements: the suggested period varied from immediate to five years, though the most popular suggestions were in the range one to two years;
- requiring pool barriers to be upgraded when the property was sold;
- requiring pool barriers to be upgraded if *substantial* renovation affecting the pool and/or its surrounds is undertaken.

Assessment

It would be difficult to conceive of introducing changes to the Act that would affect existing swimming pools without allowing a period of time for pool owners to upgrade the pool barrier. Rather more contentious is whether to continue to apply

¹² This is not the same as a 'strong' form of retrospectivity where a person is charged with an offence for an act which was legal at the time the act was committed.

exemptions to existing pools indefinitely and, if not, the length of time allowed for conversion to the new requirement. Two years would seem a reasonable choice. This provides a balance between the need to take account of the constraints faced by pool owners given that pools are an integral part of a house lot and require some time to be modified against the desirable outcome of the reduced hazards of swimming pools to toddlers.

The criterion that the upgrade is needed on sale of property is convenient from an administrative point of view, since this is a time when inspections are made of the property and the swimming pool for other purposes. In terms of pool safety, the major benefits are the possibly less serious consequences if the new owner is not fully aware of the responsibilities associated with a swimming pool.

The difficulty with the third alternative is to define unambiguously what constitutes 'substantial renovation'. In calling up the Building Code of Australia, the EP&A regulation provides powers to councils to require the whole building to be brought into compliance if renovations constitute more than 50% of the volume of the building. However, this criterion does not seem directly applicable in the case of swimming pools.

Recommendation 3: (sections 8, 9, 10, 13 of Act)

If it were decided to remove one or more exemptions to specific pool barrier requirements in particular situations, then it is recommended that certain issues be addressed in relation to whether and how this will be implemented for existing pools.

8. Other provisions in the Act

8.1 Structures within barrier

Issue

The underlying rationale for much of swimming pool safety focuses on excluding non-water based activities from the pool area and specifically within the pool barrier. This reduces the length of time toddlers are in the danger zone and makes it less probable that adults will be distracted from their supervisory role. Prohibiting structures not related to water activities within the barrier of all swimming pools would contribute to this broad aim.

Background

Section 12(c) of the Act prohibits structures within the bounds of the barrier that are not ancillary to the purpose of the pool for pools situated on properties with moveable dwellings, motels and hotels. There is no similar provision for private residential pools.

Assessment

Common practices associated with the use of swimming pools vary qualitatively depending on whether there is a private residence or a hotel/motel on the property. Residential pools are more likely to be associated with a number of social activities not directly related to water recreation. This factor may be why less stringent provisions currently apply in regard to what is allowed within the bounds of the barrier in the case of residential pools.

One further difference between the requirements for private residential pools that does not apply for pools on premises with hotels and motels is that the latter have only one exemption in the Act, namely for 'existing' pools. Prohibitions on non-water related structures are not feasible for the current exemptions for pools on large properties and waterfront properties.

It should be noted that section 18 of the Act provides that an owner of a private residential pool may decide where to locate a pool barrier.

Recommendation 4: (section 12(c) of Act)

Given the absence of evidence linking drownings to structures within swimming pool fences on residential properties, it is recommended that no change be made in regard to structures within the bounds of barriers around non-exempt private swimming pools (ie. that structures continue to be permitted within barriers surrounding such pools).

8.2 Adjacent pools

Background

For the purpose of Part 2 of the Act, adjacent pools are treated as a single pool in regard to requirements on the barrier (section 21 of the Act). There has been at least one instance in NSW where a small child has drowned in a normal pool that was not separated from a wading or toddler's pool (one barrier presumably surrounded the two pools). However, this drowning occurred in a public pool and public pools are not the subject of this Act.

Assessment

The danger with section 21 is of course that, as appeared to happen in the cited example, adults might swim in the main pool leaving toddlers under inadequate supervision in a wading pool or in the general pool area.

Our view is that a requirement for a separate fence around each pool where pools are adjacent would be unwieldy. There may in fact be instances where such an arrangement could increase risks.

Recommendation 5: (section 21 of Act)

No change is recommended in regard to the treatment of multiple pools in close proximity as a single pool in relation to barrier requirements.

8.3 Swimming pools under construction

Background

A number of concerns have been raised about pools under construction. An excavation for a pool can fill with water due to rain. Pool builders commonly recommend that their pools be partially filled with water after installation to assist in ground settlement under the pool. Both cases pose a hazard for small children. On the other hand, there are difficulties in having a barrier at this time since it interferes with activities during the construction phase.

Submissions

One council suggested that responsibility for erecting a barrier around the pool lie with whoever first fills the pool (to a depth of at least 300 mm).

The preliminary consultation raised the point that the defence to prosecution in the case of a pool under construction may be invoked if the water in the pool is

less than 300 mm deep. As discussed earlier, small children can drown in water less than 300 mm deep.

Assessment

A pool under construction is considered to be subject to the provisions in the Act, subject to the defence to prosecution provided in section 25(3)(b) of the Act.

It seems preferable to require restrictions on access to any construction to be addressed as part of the conditions imposed on the development consent for a swimming pool under the *Environmental Planning and Assessment Act 1979*. Not only does this raise the issue of effects that lie outside the scope of the Swimming Pools Act (see section 10.1 of this report for further discussions on links with other legislation), but enforcement of the requirements for pools under construction does not fit neatly into inspection regimes that might be considered for swimming pools.

Recommendation 6:

Given the links to the *Environmental Planning and Assessment Act 1979*, it is recommended that the matter of restriction of access to swimming pools under construction be pursued with the Department of Planning.

8.4 Section 19 of the Act – use of wall of residence

Background

The interpretation of section 19 has been the cause of considerable uncertainty. It is reported that this uncertainty has translated into a non-uniform approach across councils on how section 19 is applied in individual cases. Section 19 states:

‘A child-resistant barrier that is formed by, or that includes, a wall of a residential building, hotel or motel is regarded, for the purposes of sections 7 and 12, as separating any outside swimming pool from the residential building, hotel or motel so long as:

- (a) the wall contains no door, window or other opening through which access may at any time be gained to the swimming pool, and*
- (b) the wall is designed, constructed, installed and maintained in accordance with the standards prescribed by the regulations, and*
- (c) the remainder of the barrier complies with section 7 or 12, as the case requires.’*

Submissions

There was general agreement that walls should be allowed to form part of a swimming pool barrier for non-exempt pools, provided access to the pool was unambiguously denied. A number of possible rewordings were suggested to remove possible ambiguity, though one submission by a legal professional maintained that the current wording was perfectly clear.

Assessment

Section 19 expressly allows the use of a wall of a building as part of a barrier for non-exempt pools, as indicated by the inclusion of the phrase ‘separating any outside swimming pool from the [building].’

Section 19(a) requires that the wall contains no door, window or other opening through which access may ‘at any time’ be gained to the swimming pool.

This provision does not prohibit the inclusion of doors and windows in a wall, but prohibits those walls with doors and windows through which access can at any time be gained. One source of confusion appears to be in regard to how a door can be said not to provide access – the door would need to be permanently closed and so could hardly be classed as a door.

The most direct solution may be to eliminate all references to doors in section 19, since a door that is permanently sealed hardly satisfies the definition of being a *door*. Some consideration may be given to the practical effect of this requirement as part of the Act.

Recommendation 7: (section 19 of Act)

It is recommended that section 19 be redrafted to remove all references to doors, so that walls are allowed as part of a pool barrier provided there is no access at any time to the swimming pool.

Consideration could be given to moving the provisions in section 19 to the regulation since it seems to deal with standards of pool barriers.

8.5 Spa pools

Issue

Spas, like normal pools, pose dangers for small children. However spa pools are generally smaller and more easy to deny access to for toddlers.

There have been a number of recent fatalities involved with hair becoming trapped in the drain of a spa pool. Regulation of the risks associated with such an event or instances where the initial access to the spa is intentional is outside the scope of the Act.

Background

The Act provides an exemption for spa pools (not spa baths) from the requirement for a child resistant barrier. However, access to the spa must be restricted in accordance with standards prescribed in the regulation.

We are aware of two drownings (both of two year old boys) in spa pools due to unintended access:

- one drowning in NSW in 2000-01
- one drowning in Victoria in 2005.

Submissions

There was little agreement as to how best to deal with spa pools, with the majority favouring some form of exemption.

Assessment

There are two questions regarding spa pools:

1. should spa pools be exempt from the general requirements for a pool barrier?
2. if the answer is yes, what standards should apply?

It would seem that an exemption is justified in view of the difference in magnitude of risks. Question 2 will be addressed in some detail in the RIS in terms of the specifics of risks associated with spas.

Recommendation 8: (section 20 of Act)

It is recommended that the exemption for spa pools from the general requirements for a pool barrier be retained.

9. Administration and compliance

9.1 Inspections and registers

Section 9.1 of this report deals with three linked though separate matters: compliance certificates, swimming pool inspections and swimming pool registers. There is a separate subsection under section 9.1 on the certification requirements at time of sale of property that brings together elements of compliance certificates and inspections, and this is discussed further in section 10.1 in regard to whether this should occur under the *Environmental Planning and Assessment Act 1979*.

Compliance certificates

Issue

Should the holding of a valid compliance certificate be made mandatory?

Background

At the present time, a pool owner can request the council to issue a compliance certificate as evidence of compliance. The council must accede to this request if the pool complies with the legislation. Councils can charge \$50 for issuing a certificate of compliance.

Submissions

A number of submissions have advocated a change in the voluntary nature of compliance certificates so that they could be used by councils as part of their enforcement activities. A range of options have been suggested.

Compliance certificates could be issued directly by councils. Alternatively, certificates could be issued by accredited third party certifiers and the council would maintain a register of compliance certificates received and take action where registered pool owners failed to submit a valid certificate at the specified time.

A number of council submissions suggested a reduced version of this scheme requiring a valid compliance certificate to be included in the documentation needed at the time of transfer of a property with a pool (refer discussion on possible requirements at transfer of property in section 7.3 of this report). This proposal has some analogies with building certificates issued under section 149A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and this is discussed in section 10.1 of this report.

Pool owners on the whole were against the idea of mandatory compliance certificates, considering that this was an unwarranted intrusion and unlikely to be effective in promoting pool safety.

Assessment

Mandatory compliance certificates constitute a form of documentary evidence that a pool barrier is in compliance. They would add administrative formality to a regulatory scheme incorporating a pool register and regular inspections (discussed below). But the point needs to be made that their substantive contribution to safety over and above what is offered by the inspection itself is limited to ease of administration. The incremental costs would be quite low as well.

On the other hand, in the absence of periodic inspections, mandatory compliance certificates could have the potential to add value if their use and implementation was designed with care. For example, as proposed in a number of submissions, requirements for compliance certificates could be restricted to specific occurrences, such as commissioning of the pool or the sale of the property (much like a section 149A building certificate). There would seem to be a strong fairness argument for mandating a compliance certificate on sale of property so that the new owners could be confident that their pool complies with the Act. In addition the certificate could reinforce the message from pool safety information provided to the new owners, since gaps in knowledge are a perceived weakness in the current arrangements. Pitt and Balanda (1991) found that an apparently disproportionate number of immersions occurred where the parents of the child were unfamiliar with the pool (either new owners or visitors to the property).

Restrictions on the scope and use of compliance certificates along these lines would help to keep costs to a reasonable level since the certificate would be issued at the same time as inspections to meet other statutory requirements are being conducted. Refer to section 7.3 of this report for further discussion on inspections at the time ownership of land is transferred.

Recommendation 9:

It is recommended that further consideration be given to mandating compliance certificates at all or certain times (such as sale of property), in tandem with consideration of a pool register and inspection regime, but that any decision should weigh up the real contribution that compliance certificates can make to pool safety against the expected costs.

Regular inspections of swimming pools**Issue**

Is it justified to mandate periodic inspections of swimming pools?

Background

The Act confers powers on council inspectors to enter premises where it is suspected a swimming pool is located (section 28). However there is no specific provision in the Act requiring councils to undertake inspections of pools.

Under the normal council processes that apply in relation to development applications and approvals, swimming pools should already be inspected when first constructed or when there are major changes. A number of councils have raised concerns that with the introduction of non-council building inspectors, councils no longer directly control the initial inspection of swimming pools.

There is considerable variation in the efforts by councils to monitor the ongoing compliance of barriers. In the absence of periodic inspections, research has shown that compliance with the swimming pools legislation is poor.

Submissions

As with other matters of enforcement, the views in submissions were split in the main between pool owners (who considered this a waste of resources and seriously questioned effectiveness) and councils and other organisations (who supported the idea). However, notably some councils were not in favour of regular inspections due to uncertainties about funding and possible liability. The alternative is some form of audit scheme using third party certifiers paid for directly by the pool owner.

If regular inspections are to be implemented, suggestions for the frequency of inspection were made in a number of submissions ranging from every year to every five years, plus a number of intermediate frequencies clustering around two years.

One problem is that regular inspections are expensive. Stakeholders who advocated a requirement that councils undertake programmed pool inspections on a regular basis emphasised that funding arrangements need to be put in place to avoid financial impacts on other council services. The preference on the part of councils was for a 'user pays' scheme with pool owners paying a fee for the inspection. This was seen as being more fair to non-pool owners than a scheme where the funds to cover costs of inspections came from general ratepayer funds.

A number of pool owners argued that, if regular pool inspections were to be introduced, responsibility for funding should lie with the State (who proposed the idea) as a form of community service obligation since the beneficiaries were not the pool owners.

Other possible sources of fees may be limited. Section 608 of the *Local Government Act 1993* (LG Act) provides that a council may charge an approved fee for inspecting non-commercial premises but only if the inspection is in connection with an approval.

Submissions raised other matters in relation to inspection that are sufficiently important to need to be taken into account in planning for changes but may not be appropriate for inclusion in the legislation, such as proper training for inspectors and a standardised 'checklist'.

Assessment

Inspections of swimming pools are at the heart of compliance as shown by the research outlined earlier. Western Australia is the only State that currently mandates periodic inspections of swimming pools.

The detailed research conducted for three NSW councils (van Weerdenburg et al 2003) illustrated that generally compliance levels were low (below 50%) in council areas with low enforcement activity, and that the effect of an inspection regime was to raise the compliance levels substantially. Unfortunately there is no

information on how this improvement in compliance translates into reduced drowning hazard.

Two of the councils who responded to the discussion paper indicated that they already undertake active inspection programs. Two other councils provided cost estimates and these are summarised in table 9.1.

A one-off inspection of all the estimated 300,000 pools in NSW would cost in the range \$15 million to \$25 million. If the inspections were undertaken each year then this is the annual cost. For inspections every two years the annual cost ranges from \$7.5M to \$12.5M. For inspections every five years, the annual cost ranges from \$3M to \$5M.

A discussion on these costs and how they related to improved pool safety outcomes is contained in Chapter 4 of Part 2 of this report.

Table 9.1: Cost estimates for inspections

Council A	Council B
10 inspections per day	30 minutes for an inspection
2600 inspections per year	125% loading for travel, reporting, issue of notices, etc
\$100,000 annual cost per inspector (includes on-costs, vehicle etc)	Total time is 67 minutes per pool
Add on 30% for administration costs, computer etc	50% non-compliance requiring follow-up inspection
	35 hour week
	\$80,000 annual cost per inspector
Inspection cost per pool \$50	Inspection cost per pool \$84

In regard to funding of regular inspections, the general principle is that the costs to the regulator be recovered from the regulated community (in this case, the pool owners) as enunciated in the report on the Productivity Commission 2001 Inquiry on Cost Recovery.

Recommendation 10:

It is recommended that consideration be given to swimming pool inspections for specified occurrences (such as sale of property).

Register of swimming pools

Issue

Is it justified to require councils to establish registers of swimming pools?

Background

Section 5(a) of the Act requires that a council is 'notified of all swimming pools ... in its area'. However, the Act provides no clarification of how the notification is to be effected, and certainly there is no indication of a register of swimming pools as such.

It may be remarked that councils currently need, as a minimum, to hold information on the data about when pools were constructed to enable them to determine if a pool is eligible for an exemption as an 'existing' pool.

In regard to compliance with the requirements for notification of swimming pools under section 5 of the Act, the review of 35 councils as part of the Better Practice Program conducted by the NSW Department of Local Government (DLG undated) found that:

- one council had a register of swimming pools that made use of aerial photographs
- one council had a formal notification program
- two councils dealt satisfactorily with notifications of new constructions for swimming pools but their practice in terms of existing pools was described as 'reactive' (relying on information provided by neighbours)
- two councils were identified as having no notification program

In addition in regard to section 5 of the Act, only two councils were commended for having in place a formal program to promote awareness of the Act, seven councils were identified with no formal awareness program and two councils provided information either through fact sheets or on request.

Submissions

There was general support for a pool register from councils and a number of submissions contained detailed lists of the data items proposed to be stored.

Submissions from pool owners were unenthusiastic and those that were not outright antagonistic indicated that only minimal information should be held (such as address). One pool owner suggested that the only valid use of a pool register is to support the delivery of pool safety material, and this use would be supported by many pool safety advocates though not at the expense of excluding the capability for enforcement functions. A number of privacy concerns were raised, that related in part to the way that the information is to be collected.

A small number of submissions proposed that a centralised pool register be developed, presumably by the Department of Local Government.

Assessment

Certain councils have developed a register of pools to support administration of the Act. Research conducted to date indicates that councils already hold considerable information on pools, presumably collected as part of council approval processes. However, this information is often distributed throughout individual files and in hard copy form, so that ready access is problematic. For effective regulation by each council, what is needed is a 'corporate' register that can be accessed readily and this realistically means a computerised system.

If the data collection and storage systems can be standardised across councils, then this would afford a valuable opportunity for consistent data that can be analysed at the state or regional level.

As pointed out by one submission, given the costs involved, a register of pools to be maintained by each council is only sensible if the register plays a clearly understood role in delivering pool safety. Decisions on the types of information to be held and how the data are to be stored will flow from the functional needs for the register.

A register would permit councils to address safety of swimming pools in a proactive manner. One important use for a register of pools is likely to be for the purposes of managing inspection programs, as well as the issuing and monitoring of compliance certificates. A register of pools that contains information on the type of pool fence would also be invaluable for analysing the effectiveness of different standards and requirements.

An electronic database would provide a powerful search capability, and the added value from the use of geographic information systems (GIS) may also be worthwhile investigating. Development costs should be reasonable provided that the council already has GIS capability. One submission suggested that there may be potential cost savings through the development of a generic system that could be used by all councils.

A key question was which swimming pools should be covered by the register. Ideally, a council would have information on all pools in its area of operation. However, the costs of assembling information on unapproved pools would be expected to be quite high and even collating data from individual development application files is likely to be resource intensive. On the other hand, low cost applications of new technology may be utilised (such as Google Earth) to locate pools. Once the address of pools is known, further information could be sought from the owner.

Alternatively, councils could develop the pool register system and commence to populate it with information from future swimming pool development applications. This is a low cost option, and can be extended in the future to include older pools.

With regard to the concerns raised by certain pool owners about invasion of privacy, our view is that the information to be stored on the swimming pool register would not be deemed to be 'personal information' as defined in section 4 of the *Privacy and Personal Information Protection Act 1998*.

Recommendation 11: (section 5 of the Act)

It is recommended that all councils be expressly required to develop a swimming pools register and, at the least, store information for all swimming pools installed in the future. Consideration should be given to developing a standardised format for storage of information to provide compatibility across councils and leaving open the possibility of a single pools register.

Certification of swimming pools at sale of property

Issue

There is currently no statutory requirement for certification of swimming pools at the time of transfer of ownership of a property.

Background

Section 149A of the EP&A Act requires a council to issue a building certificate if there are no discernible grounds for the council to order or take proceedings requiring that the building be demolished, altered, added to or rebuilt. The effect of a building certificate is that it prevents the council from issuing orders or taking proceedings in relation to the building. Certificates issued under section 149A are commonly used during transfer of properties.

Compliance certificates issued under section 24 of the Swimming Pools Act are similar in intent to building certificates, but the level of awareness amongst members of the public of compliance certificates is probably much lower. The upshot is that while section 149A certificates are invariably issued as part of the conveyancing process, it is understood that this is rarely the case for compliance certificates for swimming pools.

It is not clear whether a swimming pool barrier comes under the definition of a building for the purposes of section 149A of the EP&A Act.

Submissions

There was broad agreement amongst councils that certification of swimming pools when properties are sold was very desirable though pool owners took an opposing view.

Some councils have indicated that they feel legally obliged not to issue a building certificate if the barrier surrounding the swimming pool does not comply with the swimming pools legislation. Others attach a statement to the building certificate as to whether the pool fence is in compliance or not.

The situation in regard to swimming pools at time of transfer of properties has been clouded by the introduction of third party certification under the EP&A Act. It was reported that it is common practice when a council officer issues a section 149A certificate that the swimming pool on the property is inspected. The situation with accredited certifiers is not clear, particularly in view of the fact that the Swimming Pools Act provides no powers to accredited certifiers.

Assessment

It seems incongruous that swimming pools should be outside the broader certification scheme in view of the serious nature of the hazards associated with pools. In this regard refer to the discussion under compliance certificates earlier in this section, and the discussion on links to other legislation in section 10.1 of this report.

Our opinion is that formal requirements for compliance at these times would add significantly to the overall quality of pool fencing and contribute to pool safety. The formal requirements for documenting compliance would provide a valuable means to reinforce to new owners the hazards associated with swimming pools and the need to take appropriate care.

Moreover, the incremental costs of checking compliance are expected to be low, considering that inspectors are already on the site in regard to the buildings or the land so that, if the swimming pool inspection requirements are well designed, there should be no additional travel. Thus we would support formal documentation for compliance at these times.

For the system sketched above to take advantage of the efficiencies from one person inspecting both the swimming pool and the remaining buildings, it will be necessary to ensure that third party certifiers have the necessary skills and this would involve training and testing. Submissions from some councils raised a certain amount of doubt as to the competency of third party certifiers and possible conflicts of interest since they are paid by the land owner. However, such concerns whether based on fact or not, are not restricted to swimming pools

but apply to the entire third party accreditation system: an assessment of the effectiveness of this scheme is well beyond the scope of this review.

Recommendation 12:

It is recommended that:

- swimming pools be subject to certification for compliance with the Act at time of sale of the property
- consideration be given to accrediting third party certifiers for assessment of swimming pools at time of sale of the property but not give them power to grant exemptions under section 22 of the Act.

9.2 Penalties

Issue

The issue is the appropriate maximum limit for penalties.

Background

Section 35 of the Act provides for penalty notices to be served where an inspector believes an offence has been committed against the Act or regulation. The penalties for various offences are prescribed in the regulation but section 35(6) of the Act places a limit of two penalty units on the maximum penalty that can be set. Currently, one penalty unit is \$110, so the maximum penalty notice is \$220.

The maximum penalty for any offence is 10 penalty units (\$1100) if the matter goes to Court.

Submissions

Most members of the public indicated that they felt that the existing penalties were appropriate, or could be lowered or removed.

Many of the council submissions took the view that \$220 for a penalty notice was inadequate for offences under the Act, given the scale of hazards associated with swimming pools. There was a cluster of suggested increases in the range \$500 to \$600 (say five penalty units), in line with penalties under the *Protection of the Environment Operations Act 1997*. A small number of submissions suggested higher penalties of approximately \$1,000.

There were also calls for differential penalties more closely matching the seriousness of the offence, though this is more a matter for the RIS. One submission suggested that the Act impose a (increasing) penalty on a weekly basis until the non-compliance is rectified.

Assessment

Given the seriousness of the consequences of offences under the Act there seems to be a reasonable argument for setting a higher maximum penalty notice penalty.

Recommendation 13: (section 35(6) of Act)

Given the seriousness of the consequences of offences under the Act it is recommended that the maximum penalty for a penalty notice be increased to five penalty units, and that a corresponding increase be made for penalties where matters go to court.

9.3 Council does remedial works

Issue

Should councils be given the power to undertake remedial works on pools where the owner does not (or cannot) bring the pool into compliance with the Act?

Background

The predecessor to the Act gave councils the power to enter premises and undertake works to bring a pool fence into compliance if the owner refused to do so or the owner could not be contacted. Subsequently this power was removed from the 1992 Act. The main argument used was that giving powers to a council to undertake works on a backyard pool was inconsistent with society values and civil rights in regard to private property.

Submissions

Any move to reintroduce powers to councils to undertake remedial works was roundly criticised by almost all pool owners, on the basis that it would constitute an erosion of their property rights and would be over used by councils.

Council submissions were mixed. The majority of councils supported having these powers given the potential hazards associated with pool fences that had major defects. Some of the councils included a proviso that remedial works should be done only in accordance with a court order. Other councils were concerned that they could face litigation if the works carried out were seen to damage or reduce the value of the pool or other parts of the property, or that undertaking remedial works would impose difficult to meet demands on council resources or expertise. Finally, the issue was raised of recouping money spent on the works from the pool owner, particularly if the owner could not be found.

Assessment

This proposal is similar to powers that already exist under section 678(1) of the LG Act. By that provision, if a person fails to comply with the terms of an order given to the person under Part 2 of Chapter 7, the council may 'do all such things as are necessary or convenient to give effect to the terms of the order, including the carrying out of any work required by the order'.

Although the non-compliance of swimming pool fences does not appear to come under the intention of section 678(1)¹³, the existence of these provisions suggests that there is a precedent for the powers that would be given for councils to undertake remedial works for swimming pools. The question that needs to be considered is whether the hazards associated with swimming pools are of the same magnitude as those in the entries to the table to section 124 of the LG Act to justify the potential loss of control for a landowner over his or her property. Our view is that the answer to this question is yes.

Recommendation 14:

It is recommended that further consideration be given to legislating powers for councils to do remedial works on swimming pool fences, in situations where

¹³ Swimming pools could possibly be considered to come within the definition of order 9 or order 21 in the table to section 124 of the LG Act but this does not seem intended given the existence of the Swimming Pools Act.

there is an immediate hazard and where the owner is unable or unwilling to undertake the works, subject to appropriate controls, such as a court order.

10. Structure of the Act and relationship with other legislation

10.1 Standalone legislation for swimming pools

Issue

Should swimming pools legislation remain separate or should controls on swimming pools be included in other legislation?

Background

Councils operate under a range of legislation, of which the most important are the *Local Government Act 1993* (LG Act) and the *Environmental Planning and Assessment Act 1979* (EP&A Act). There are certain commonalities between these two acts and the Swimming Pools Act, in relation to a range of enforcement activities to ensure a safe and healthy community. Consideration could be given to the use of these other legislation to achieve the objectives of the Swimming Pools Act.

More specifically:

- the EP&A Act provides for approval of development proposals and building certification
- the LG Act gives councils the power to make orders in relation to a large number of matters that have the potential for hazard to public health and safety.

Other jurisdictions also have swimming pool-specific legislation, though in a number of States the legislation comes within the building regulations (Queensland, Western Australia and Victoria).

Submissions

Overall the majority of submissions supported retention of standalone legislation in view of the technical complexity associated with swimming pool barriers and the seriousness of the consequences of non-compliance.

The main counter argument raised in a minority of council submissions related to the substantial commonalities between the regulation of swimming pool barriers and other council responsibilities, and that it was logical to bring them under the EP&A Act. The item that was raised in the discussion paper, and that attracted the great majority of responses from councils referred to the building certificates issued under section 149A of the EP&A Act. A number of suggestions were made as to how best to deal with the links between the Swimming Pools Act and section 149A certificates. The council submissions were slightly in favour of amending the EP&A Act to require section 149A certificates to include a statement on swimming pool fences. A majority of the councils who did not support this appeared to be in favour of mandating compliance certificates under the Swimming Pools Act at the time of sale of the property (refer earlier discussion in section 9.1).

Section 23 of the Swimming Pools Act provides power to a council to issue a written order to a pool owner directing the owner to bring the pool into

compliance with the Act. The owner must follow the direction. These provisions are analogous to orders issued under Part 2 of Chapter 7 of the LG Act¹⁴. There was minimal explicit mention of the possibility of using the LG Act in this regard.

It was also argued by some pool owners that having standalone legislation encouraged over enthusiastic proponents of more stringent regulation to lose sight of the fact that the resources needed to meet tighter requirements on pool fences have an opportunity cost in that these resources could be used (possibly more effectively) to support other child safety initiatives.

The submission from the Australian Building Codes Board (ABCB) and an earlier submission from a council, contended that for the sake of national uniformity, regulation of swimming pools should be based on the Building Code of Australia (which in turn calls up AS1926.1-1993 and AS1926.2-1995), other than for administrative matters. Parts of the Building Code of Australia (BCA) are called up in the *Environmental Planning and Assessment Regulation 2004*.

Assessment

The prominent position occupied by pool drownings in toddler death causes appears to underpin a strong case for a continuation of standalone legislation for swimming pools. Separate legislation has the added benefit that it facilitates raising awareness of pool safety among members of the public.

On the other hand, retaining separate legislation for swimming pools leaves unresolved certain issues that are discussed further in section 7.3 as well as elsewhere in this section of this report.

In regard to the submission from the ABCB, the BCA provides for requirements in buildings but the manner in which these requirements are to be achieved in practice is left up to the regulatory framework in each of the states and territories. All new buildings must comply with the BCA but the situation varies across states in regard to compliance for existing buildings. In NSW, clause 94 of the EP&A regulation states that in determining a development application for the rebuilding, alteration or extension of a building where the work represents more than half the total volume of the building, a council is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the BCA.

The interpretation of clause 94 may not deliver the outcomes desired. For example, in some cases building works that did not affect the pool or surrounding area could result in a council requiring the pool fence to be upgraded. Conversely, a council might not require a pool fence to conform with the BCA (and hence AS1926) after works to the pool itself if the works represented less than half the building volume. Given the issues associated with existing pools (and similar considerations for the version of the standard AS1926 invoked in the regulation), calling up the BCA might not provide the straightforward solution suggested by the ABCB submission.

Also many standards and codes adopted at the national level are not implemented in full by each of the jurisdictions.

¹⁴ A note to section 124 of the LG Act states that section 24 does not affect the power of a council to issue orders under other Acts and explicitly references the Swimming Pools Act.

Our view is that it is preferable to deal with pool fencing compliance at the time when ownership of land is transferred by means of compliance certificates under the Swimming Pools Act, rather than as part of building certificates issued under section 149A of the EP&A Act. As contended in some submissions, if swimming pool legislation is 'standalone' it is logical that the legislation be as self contained as possible. In addition, mandatory compliance certificate arrangements can be tailored to the conditions specific to swimming pools, and this is not possible for a general requirement such as building certificates under section 149A.

This may require changes to the Swimming Pools Act in terms of the powers of accredited certifiers if it were decided that they would be able to issue compliance certificates. There may also be implications for the EP&A Act.

Recommendation 15:

It is recommended that the legislation of swimming pools be kept in a standalone Act.

Recommendation 16:

It is recommended that compliance certificates be used in preference to section 149A certificates if certification of swimming pools is made mandatory at point of sale of a property.

Recommendation 17:

It is recommended that the question of whether swimming pool fences come under the scope of section 149A be pursued further with Department of Planning.

10.2 Prescriptive versus outcomes based regulation

Issue

What is the optimal level of prescription for the regulation of swimming pools?

Background

Traditionally governments have favoured a prescriptive approach to regulation. Prescriptive regulation is characterised by detailed requirements for compliance. Over the last 10 to 15 years there has been a move away from prescriptive regulation in NSW towards a more outcomes based approach that emphasises the attainment of community accepted goals and objectives, leaving it up to the members of the regulated community to determine how they are to meet these objectives.

The existing Act and regulation (and AS1926 called up in the regulation) are considered to sit at the prescriptive end of the spectrum. In general, regulations made under the *Local Government Act 1993* tend to be relatively prescriptive.

It should be noted that the powers and responsibilities of councils provided in section 5 of the Act are stated very broadly:

'Each local authority is required:

- a) to take such steps as are appropriate to ensure that it is notified of the existence of all swimming pools to which this Act applies that are within its area, and*

b) to promote awareness within its area of the requirements of this Act in relation to swimming pools.'

Submissions

There was little agreement in regard to the question of prescription. Councils tended to favour the status quo or even a move to greater prescription. Members of the public did not have a united view but indicated a preference for a greater emphasis on outcomes (though really their preference was to remove the legislation altogether). Council submissions tended to support prescriptive regulation because:

- legislation is a source of information, particularly for non-professionals (pool owners). It also more broadly directs what the pool industry should do
- it makes the regulatory task for councils easier
- it reduces the likelihood of disputes and legal action since the requirements are spelled out in detail
- it is consistent with the relatively prescriptive approach in the LG Act and regulation.

In particular councils were unhappy with section 5 and took the view that it left councils unsure how they should discharge their responsibilities.

Assessment

It would appear that in the case of swimming pools, many of the conditions that favour outcomes based regulation are absent and, in general, that the current level of prescription is appropriate under the circumstances.

The case for strengthening section 5(a) is not strong in our view. Section 5(a) appears to be a reasonable requirement, and no convincing arguments were found in the submissions to justify any changes. In any case further detail, if considered necessary, would be better provided in the regulation. On the other hand, if it is decided to introduce requirements for a swimming pools register, then this would replace the need for section 5(a).

Section 5(b) relates to public awareness and there is no strong argument for prescribing what form this takes in legislation. In fact, prescribing detailed requirements would have the potential for ruling out possibly effective, locally appropriate approaches to raising awareness of the requirements in the Act.

Recommendation 18:

It is recommended that the current approach to prescription for the regulation of swimming pools be retained with the possible exception of section 5(a) of the Act, which would become superfluous if it is decided to legislate for a swimming pools register.

11. Miscellaneous issues

A number of issues were raised in the submissions received from stakeholders that are not considered to be as critical in relation to pool safety as the matters discussed in the previous chapters. In many cases, the issues relate to confusion over interpretation of certain provisions in the legislation and changes in wording to improve clarity.

11.1 Diagrams in Act

Issue

A number of submissions found the supporting information provided in the diagrams in Schedule 1 intended to illustrate provisions in Part 2 of the Act to be unclear.

One criticism was that it is not possible to differentiate the symbols denoting 'boundary of premises' and 'child resistant barrier' on a hard copy of the diagrams appearing in the Act.

It was considered that the diagrams in AS1926 provided a good model for diagrams in the Act.

Recommendation 19: (Schedule 1 of the Act)

It is recommended that consideration be given to revising the diagrams in the Act for greater clarity, perhaps along the lines of those in AS1926.

11.2 Definition of terms

Issue

A broad-based concern was raised in a number of council submissions that the definitions lacked clarity and this resulted in some confusion, with calls for a general review of the definitions used in the Act. In addition, there were specific issues raised with individual definitions, or the lack of definitions.

The absence in the Act of a definition for 'restricted access' has been criticised. The term is not defined in the dictionary to the Act or clause 4 (Definitions) in the regulation. Clauses 6, 8 and 11 of the regulation provide for how access to a pool is to be restricted in the case of exemptions for outdoor pools, indoor pools and spas, respectively.

Similarly, it was noted that 'child-safe' was defined in clause 4 of the Regulation but not 'child-resistant'. However, the standards for a child-resistant barrier are set out in clauses 6, 7, 8 and 11 in the Regulation.

It has been remarked that both the terms *barrier* and *fence* are used in the legislation and that this is confusing to councils and pool owners. However the use of fence seems to be reserved in the sense of dividing fence between two properties.

There have also been calls for clarification on the definition of temporary pools, though this does not seem relevant for the purpose of the Swimming Pools Act.

Recommendation 20: (Dictionary to the Act)

It is not recommended that there be further or changed definitions in the Act, other than for definitions of additional terms generated by changes elsewhere in the Act. The matter of definitions in the regulation will be addressed in the RIS.

11.3 Other issues raised

Section 23 wording

Section 23(1) of the Act provides that councils may issue an order that directs an owner to undertake certain actions. Section 23(2) states that '... such a

direction...' One submission suggested that this apparent inconsistency could be removed by using the term direction rather than order.

Another submission suggested the use of the term 'pool safety order' in section 23, and that a compliance certificate be referred to as a 'pool safety statement'.

It is recommended that no changes are made to the wording of section 23 of the Act.

Section 15(1) wording

One submission has suggested that section 15(1) should focus more on children and that the last line should read 'as an effective and safe child-resistant barrier.'

It is recommended that section 15(1) should focus more on children and that the last line should read 'as an effective and safe child-resistant barrier.'

Pool Fencing Advisory Committee

It was observed that the requirement in section 31(1)(d) that one member of the Committee be nominated by the Department of Psychology of the University of Sydney is unnecessarily restrictive, and that this member could come from any suitable academic institution.

While this is true, the Committee has not met for many years and provisions relating to it are no longer necessary.

It is recommended that the provisions relating to the Pool Fencing Advisory Committee be removed.

Terminology

Section 27(2) of the Act provides that the certificate be in the 'prescribed form'. This requirement is absent from similar Acts and results in multiple identification requirements for authorised officers.

One submission pointed out that the use of the term 'inspector' (sections 27, 28 and 29 in the Act) is inconsistent with the terminology of 'authorised officer' used in similar Acts.

It is recommended that, to the extent possible, the *Swimming Pools Act 1992* be made consistent with other legislation under which councils have powers or responsibilities, in regard to provisions for

- the use of the term 'authorised officer' instead of the current 'inspector' (Part 3 of Act);
- the current requirement for the certificate of identification to be in the 'prescribed form' (section 27(2) of Act); and
- additional technology that may be used for the service of notices (section 34 of Act)

Name of legislation

One proposal put forward was to remove the word 'Swimming' so that the names of the legislation become the Pools Act and Pools Regulation, on the basis that it may be inferred from the inclusion of the term *swimming pools* in the title that

pools not specifically designed for swimming (such as wading pools and spas) are not covered.

It is recommended that the name of the Act is not changed.

Non-English speaking background (NESB)

The importance was emphasised of providing information and community education programs to communicate changes to the legislation that is accessible by people from language backgrounds other than English. Similar considerations apply to warning signs to be erected near swimming pools.

It is considered that this issue would be more appropriately addressed in guidelines.

Pool covers

Generally the use of pool covers to prevent toddlers falling into pools was not supported since it was considered they were not designed as a safety measure and could under certain circumstances increase the hazards associated with swimming pools. One problem with pool covers is that they require adult action to replace when the pool is not in use.

One submission, on the other hand, cited a particular brand of swimming pool cover that the writer had found to offer a high level of safety in restricting access. At this stage, in the absence of more detailed technical assessment, no comment is offered on the suitability of this product for the purpose of pool safety.

It is recommended that pool covers not be considered as a means to restrict access to swimming pools by small children.

Courts of jurisdiction

Section 30 of the Act provides that a local authority may bring proceedings in the Land and Environment Court for an order to remedy or restrain a breach of the Act. On the other hand, under section 36 proceedings for an offence against this Act or the regulations are to be dealt with summarily before a Local Court constituted by a Magistrate sitting alone.

It has been suggested that proceedings to remedy or restrain a breach of the Act be allowed in either the Land and Environment Court or the Local Court, as it would be convenient for councils to be able to have all proceedings conducted in the same Court.

It is recommended that proceedings to remedy or restrain a breach of the Act be allowed in either the Land and Environment Court or the Local Court, as it would be convenient for councils to be able to have all proceedings conducted in the same Court (section 26 and Part 3 of the Act).

Signage

It is recommended that requirements for signage on depth of water in swimming pools be pursued with the Department of Planning.

Large inflatable pools

Large inflatable pools are subject to the provisions in the legislation as they fall under the definition of 'pool'. However, these pools do not require a development application and this makes enforcement problematic in practice.

This appears to be a matter that might be pursued with the Department of Planning given the links to development approvals under the EP&A Act.

Natural Justice

One council reported it has come under scrutiny for not following the provisions of natural justice by failing to provide notice of its intention to serve a pollution prevention notice under the *Protection of the Environment Operations Act 1997*, even though there is no explicit requirement to give notice¹⁵. This could provide a precedent for similar considerations of whether the requirements for natural justice have been satisfied in regard to notices issued under the Swimming Pools Act.

Given the serious nature of the consequences of non-compliance with the Swimming Pools Act, it is recommended that consideration be given to expressly absolving councils of the requirement to provide notice of intention to issue an order to bring a pool into compliance with the Act (section 23).

¹⁵ Section 132 of the LG Act provides that a Council must give notice of its intention to issue an order under that Act.

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Appendix 1 – List of submissions received

Initial call for submissions

Australian Toy Association
Baulkham Hills Shire Council
Bellingen Council
City of Ryde Council
Community Relations Commission
Cowra Shire Council
Fairfield City Council
Gilgandra Shire Council
Gosford City Council
Healthy Cities Illawarra
Housing Industry Association
Kidsafe New South Wales Inc
Kogarah Council
Local Government and Shires Associations
Mid-Western Regional Council
NSW Health
NSW Injury Risk Management Research Centre
NSW Office of Fair Trading
Parramatta City Council
Pittwater Council
Queanbeyan City Council
Randwick City Council
Royal Australian College of Physicians
Sutherland Shire Council (2 submissions)
Wollondilly Shire Council
Wollongong City Council

Responses to Discussion paper

21 submissions from private citizens
Australian Building Codes Board
Association of Accredited Certifiers
Australian Institute of Building Surveyors
Ballina Council
Bathurst Regional Council

Blacktown City Council
Blue Mountains Council
Building Professionals Board
Camden Council
Campbelltown City Council
Commission for Children & Young People
Coroners Court
Gosford Council
Hawkesbury City Council
Hunters Hill Council
IRMRC - Williamson
Kempsey Shire Council
Leichhardt Council
Liverpool Council
Macquatics Swim Centre Training
Maitland City Council
Many Rivers Aboriginal Legal Service
Master Builders Association
Mid-western Regional Council
Parramatta/Bankstown Councils
Penrith Council
Pittwater Council
Port Macquarie Hastings Council
Port Stephens Council
Port Stephens Council
Queanbeyan Council
Randwick City Council
Shellharbour Council
Shoalhaven City Council
Sutherland Shire Council
Sydney City Council
Taree Council
Truscott, Susan
Tweed Shire Council
United Services Union
Upper Hunter Shire Council
Warringah Council

Wollongong City Council

Wyong Shire Council

Appendix 2: Analysis for Part 2

Part 2 of this report focuses broadly on the outcomes from government intervention in swimming pool safety rather than the detail of how these outcomes are to be achieved. Appendix 2 provides further detail on the analysis on which the findings in Part 2 are based.

This report adopts a common approach in such reviews structured on the basis of the following three criteria:

- effectiveness
- efficiency
- equity

A2.1 Effectiveness

In order to justify government action, it is not sufficient to identify a problem, or even to quantify the extent of the problem. It is also necessary to demonstrate that government action will be *effective* in reducing the problem: in other words government action must make a positive difference. Effectiveness is evaluated by comparing the state of the world with the government intervention to the state of the world without the intervention, the latter variously referred to as the *base case* (as used in this report) or the *no regulation case*.

Measures of performance

To assess effectiveness and carry out the comparison referred to, it is necessary to define the 'state of the world' in each of the cases: with the intervention and without the intervention respectively. The focus of the *Swimming Pools Act 1992* is on pool barriers to promote pool safety. Accordingly, the question of effectiveness deals with the extent to which pool barriers (of a certain type or standard) make a significant difference to water related risks by restricting access to swimming pools by small children and toddlers. Two measures of performance are possible:

- the number of drownings of toddlers in swimming pools and/or;
- the number of unintentional immersions by toddlers in swimming pools.

The main advantage of using the number of drownings as a measure relates to the quality of the available data. Definitive data on drowning are generally sourced from Coroners' reports, and these provide comprehensive coverage of all drownings¹⁶ and contain a high level of contextual information, such as the circumstances surrounding the drowning and contributing factors including the state of the pool barrier.

There is no comparable reporting scheme for unintended immersions in NSW. Unintended immersions that are non-fatal can only be counted if emergency

¹⁶ Information for the drowning report is collected and analysed by Royal Life Saving Society of Australia (NSW) (RLSSA) and the National Office of the Royal Life Saving Society of Australia. Information is collected from National Coroner Information System (NCIS), State Coroner's office and media reports. To find drowning deaths reported to the media, RLSSA uses a media monitoring service. This service uses the key words; drown, drowning, water safety, water rescue, Keep Watch, and Life Saving

services are involved. Information on unintended immersions has been obtained from hospital admissions statistics. In addition, NSW Health have provided data based on a sample of presentations to hospital emergency departments. There may be some gaps in the data where emergency services are not involved at all or the child is considered to not require a hospital stay but for the purpose of this report, and in particular the analysis in regard to efficiency discussed in Chapter 4, these are of rather lower importance.

It must be recognised that hospital admission statistics are collected for reasons quite different from the purpose of this review. In an operational environment where emergency cases are being dealt with there is a certain probability of mis-coding cause of admission.

On the other hand, the major advantage of using the number of unintended immersions as a measure of performance is that, thankfully, the majority of immersions do not end in death. The larger number of immersions compared to drownings allows for improved robustness in the statistical analysis. There is a further advantage when assessing the effectiveness of swimming pool barriers in that the factors that determine whether an immersion results in death are largely independent of the state of the barrier (generally they relate to the largely fortuitous event of a child being found in the pool within a short period of time, almost certainly less than five minutes if severe trauma is to be avoided). It is more relevant in this case to focus on the event that the pool barrier has not been effective (for whatever reason) in preventing access to the pool by the child.

In this report we will make use of data on both unintended immersions as well as drownings.

Analysis approach

Basically, there are two possible methodological approaches to measuring differences between the two situations or states of the world: with and without government intervention:

- 'epidemiological' analysis based on relating observed rates of drowning to the regulatory requirements current at a place and time, adjusted where necessary for changes to the exposure of toddlers to swimming pools;
- what will be referred to in this report as 'trial' analysis¹⁷ where the circumstances surrounding each drowning are known sufficiently so that relative risk factors can be computed on pool fence related factors.

The epidemiological approach can be used both for time series data (comparing pool safety performance across years) or cross-sectional data (comparing performance at the same point in time but across states etc). The main difficulty with such epidemiological analysis is that observed changes in pool drownings may be due to a host of factors unrelated to the factor of interest, namely government intervention in regard to pool barriers. Appendix 3 provides a summary of one such study as reported in Volume 2 of the Enhealth guidelines (DoHA 2003b).

¹⁷ The terminology relates to its usage in probability theory and to evoke the analogous situation of evaluating say a proposed medical treatment through clinical trials to measure the response of subjects that have been given a treatment against those in a control group, though unlike clinical trials the conditions in the case of swimming pools cannot be set by the experimenter – instead they are observed.

This difficulty is most pronounced for cross-sectional data (say across states with different regulatory frameworks), and we are not aware of any quantitative analysis of cross-sectional data for safety pool safety. Time series data can play a valuable role in illustrating trends over time (see figure 1 in the body of the report), but the very power of such graphical representation brings with it certain dangers that the data may be misinterpreted for the reasons discussed below.

The most straightforward approach is to simply compare the drowning rate before and after the introduction of the Act. Since lagged effects are likely to be important (given the substantial existing stock of swimming pools at the time the Act was introduced), it appears that this simple approach would need to be refined by taking account of trends in drowning rates after 1992.

The most obvious non-structural factor, as already hinted at, is the level of exposure for toddlers to swimming pools. The data points for each year in figure 1 have been normalised using the estimated number of swimming pools in NSW for that year as a proxy for the exposure of toddlers to risks associated with swimming pools.

One submission pointed out that the issue of exposure is quite complex and the use of a number of swimming pools as a proxy involves a number of assumptions. Firstly, in terms of what can be quantified, the number of children in the high risk age zone (0-4 years of age) has been quite stable, decreasing from 652,302 in 1991 to 648,825 in 2005 (source: ABS 2006). The main issues raised in the submission include:

1. have the proportions of pools in households with small children changed?
2. what has been the effect on time spent outdoors by small children from increased installation of air conditioners?
3. what has been the effect on time spent at home by small children due to increased attendance levels at childcare centres and preschools?

The fact is that we do not know the answer to any of these questions though it might be possible to collect limited data. It seems plausible to suggest that the effects referred to in questions 2 and 3 above would be expected to reduce exposure, all things being equal. But there may be other factors that have also contributed to changed levels of exposure that are unrelated to the number of swimming pools, including social norms for outside entertaining for example and even climate change.

The other major issue is that there are no reliable data on the types of barrier (or lack of barrier) for pools in NSW. The greatest gap relates to the period prior to 1990 when the first Swimming Pools Act was introduced. Up to that time, individual councils held responsibility for regulating pool barriers in the absence of any uniform statewide requirements. It is clear from documents at the time that there was no consistency in the way that councils discharged their regulatory responsibilities and consequently it is almost certain that there was a very wide variation in the standard of pool barriers.

After 1990, with the introduction of uniform regulation, the understanding of the situation became clearer since, apart from some defined exemptions, all swimming pools were required to have a barrier that met the provisions in

AS1926:1986¹⁸. Unfortunately, what is not known is the compliance rate. Recent studies have indicated that there are still many pools that fail to comply with the legislative requirements (see for example van Weerdenburg et al (2003) who recorded non-compliance levels of over 50% but anecdotal evidence suggests that non-compliance rates may be higher). It is unclear whether the non-compliance rate has changed over the years. For example, was the sharp drop in drownings one year after the introduction of the Act due to a combination of the new requirements and higher compliance, or was it due to enhanced levels of supervision of small children near pools due to the raised public awareness as a result of the Swimming Pools Fencing Review (McClellan, 1992)?

Moreover, anecdotal evidence suggests that there remain significant numbers of pools for which the council has no formal record, even where the council is proactive and maintains a swimming pool register. Drownings continue to be recorded in pools that, in effect, have no barrier that would deny access to a small child.

The matter is further confounded by the amendments made in the 1992 Act that allowed an exemption for 'existing' pools (those constructed or commenced before 1 August 1990) and other pools on properties that meet certain criteria. There are no data on how many pools qualify for each of the various exemptions, nor on the number of owners who have actually availed themselves of an exemption. Hence we do not have any robust indication on the numbers or proportion of four-sided pool fences for example.

Analysis

In view of the above broad comments, the approach adopted for the review takes the form of trial analysis. Putting this in the framework of probability theory, we imagine that a number of trials are observed, associated with each swimming pool over a convenient time period, which will be taken to be one year. Two mutually exclusive outcomes (or *events* in the terminology of probability theory) are possible for the trial for each pool within the year:

- a drowning (or immersion) occurs in the pool during the year; or
- no drowning (or immersion) occurs in the pool during the year¹⁹.

The drowning outcome is associated with a certain probability p_d and the probability of the no drowning outcome is then given by $p_{nd} = (1 - p_d)$. Importantly, the probability of drowning depends on the type of barrier in place around the pool (or the absence of any barrier). Of course, just as in the case of the epidemiological analysis, the probability of drowning is a function of a great many factors. The difference here is that the analysis is at the individual pool level rather than based on aggregates (or averages) taken over NSW as a whole. Because of that, the requirements for contextual information are rather less demanding: in particular it is not necessary to categorise pool fences over the total time since before the Act was introduced. However, it is necessary to know the number of pools with the specified type of barrier to compute the probability of a drowning for that kind of pool barrier.

¹⁸ There is discretion provided to councils under section 22 of the Act to grant exemptions in individual cases where the requirements for pool barriers are unreasonable or impracticable. It is not known to what extent exemptions have been granted under section 22.

¹⁹ It is assumed that the probability of more than one drowning occurring in one year in any one pool is sufficiently small that it can be ignored.

Unfortunately, while there is a certain amount of information available on these factors in the cases where children have drowned (see for example Williamson et al 2002), we do not have the corresponding information on the same factors for the pools where no drowning occurred. Hence no quantitative analysis is possible and these possible contributory factors will remain 'hidden' in what follows. We return to the implications for this in the discussion on the findings.

The primary question of interest is: are the probabilities of drowning different for the different types of pool barrier, and how can this be quantified?

The analysis described below is based on the findings from three reports on substantive quantitative research that has been conducted in Australia. Unfortunately, none of these studies was conducted in NSW and the applicability of the findings to NSW may be questioned. For example, the definitions for various types of pool barrier may differ in subtle ways across the studies (as might the use of the term *unfenced*), due possibly to actual differences in the statutory requirements for swimming pools in each of the jurisdictions. There may also be significant variations in the patterns of use of swimming pools and how the swimming pool fits into broader recreational activities due, for example, to differences in climate in other states or regions. However, our view is that these studies are the only rigorous assessment of the effectiveness of different types of pool barrier and that it is valid to apply the findings to swimming pools in NSW provided that the potential for errors due to differences between states is kept in mind.

Research cited

The three studies used in the analysis are as follows (see Bibliography for full citation):

- Pitt and Balanda (1991) – Queensland: Fenced versus non-fenced pools
- Stevenson et al (2002) – WA: four-sided versus three-sided pool fencing (status of child-safe doors and windows unknown)
- Barker et al (2003) – Queensland: isolation pool fencing (four-sided) versus three-sided pool fencing (with child-safe doors and windows)

Each of the reports compares the safety performance for two types of pool barrier (referred to generically as type 1 and type 2 below) by means of the relative risk statistical parameter RR. As its name implies, relative risk is the ratio of the probabilities of the occurrence of drowning in pools with one type of fence (denoted a type 2 fence) and a second type of fence (type 1 fence) respectively, given by the expression

$$RR = p_{d2}/p_{d1}$$

where p_{d1} is the probability of a drowning in pools with fence type 1 and p_{d2} is the probability of a drowning in pools with fence type 2.

The formula for the probability of drowning in any year is

$$p_{di} = d_i/n_i \quad i = 1 \text{ or } 2 \text{ for type 1 or type 2 fences}$$

where d_i denotes the number of drownings in pools with a type i fence and n_i the number of pools with a type i fence.

(a) Pitt and Balanda (1991)

This paper looked at the difference in rates of unintentional immersion in pools located in Brisbane for children up to 13 years of age with fences and pools with no fences. The period covered was 1984 to 1988.

(b) Stevenson et al (2002)

The subject of this study was the difference in drowning rates between pools with a four-sided fence and pools with a three-sided fence where there was no requirement for child-safe doors or windows in the residence. During the 12-year observational period (1988 – 2000) 50 children younger than 5 years drowned in private swimming pools in Western Australia with an overall incidence of drowning of 4.4 per 100 000 children per year. Sixty-eight percent of drownings occurred in pools that did not have four-sided fencing with an almost 2-fold increased risk (relative risk ratio: 1.78) of a child's drowning in a swimming pool with three-sided versus four-sided fencing.

(c) Barker et al (2003)

Analysis of Queensland data by QISU reported in Barker et al (2003) and QISU (2003) aimed to disentangle the causes of the difference in safety between three-sided fences and four-sided fences.

In the decade 1992 – 2001, 56 children 0 to 4 years old drowned in private inground pools or spas in Queensland. There was insufficient information to classify pool fencing configuration in six cases. Data from the remaining 50 cases were analysed, together with survey estimates of the prevalence of three- and four-sided pool barriers in Queensland. It was estimated that

- (a) the risk of a toddler drowning due to unintended access (static non-compliance) in a pool with a three-sided barrier is almost three times higher than the risk of drowning in a pool with a four-sided barrier (relative risk of 2.88)
- (b) the risk of a toddler drowning due to primary access hazard is almost eleven times higher in a pool with three-sided fencing than in a pool with four-sided fencing (relative risk of 10.98)
- (c) there were insufficient data to determine relative risk for secondary access hazard but there was an indication that the incidence was higher for pools with four-sided fencing (4 reported drownings) than for pools with three-sided fencing (1 reported drowning).

Table A2.1 provides a summary of the studies. Each of the studies found statistically significant differences (improvements) in their comparison of performance between the two types of pool fence at the 95% significance level²⁰. In other words, we can be 95% sure that the differences found in the data on reported drownings were not due to statistically random effects. There is a 95% chance that, if no changes were to occur, the relative risk estimated for future drownings would fall within the confidence intervals listed in table A2.1.

²⁰ This can be seen from the fact that the 95% confidence interval does not contain zero for any of the studies.

Table A2.1: Summary of research

Study	Pool fence		Number of reported immersions or drownings		Relative risk		Comments
	Type 1	Type 2	Type 1	Type 2	Estimate	95% CI	
Pitt and Balanda (1991)	non-fenced	fenced	47	22	3.76	2.14 - 6.62	Immersions, not drownings
Stevenson et al (2002)	three-sided - unknown status on doors and windows	four-sided	35	15	1.78	1.40 - 1.79	All 15 drownings in four-sided pools were due to gate propped open or ineffective gate latching system
Barker et al (2003) (a) unintended access	three-sided + child safe doors & windows	four-sided	11	7	2.88	1.02 – 8.75	All drownings occurred due to defective gates or doors
(b) primary access hazard	three-sided + child safe doors & windows	four-sided	6	0	10.98	1.33 - 505	All children who drowned were allowed into pool area by parent

CI = confidence interval for the estimate of relative risk

The relative risk estimated by Pitt and Balanda for an immersion in a non-fenced pool compared to a fenced pool (RR = 3.76) is twice the relative risk of a toddler drowning in a pool with a three-sided fence (unknown status for doors and windows) compared to a pool with a four-sided fence (RR = 1.78). This result seems intuitively plausible: there is a greater gain in pool safety from fencing a pool than from moving from a three-sided fence (unknown status for doors and windows) to a four-sided fence. Similarly this accords well with the value of relative risk estimated in Barker et al analysis (a) of 2.88.

The highest value is found in the study by Barker et al (2003) for the relative risk associated with primary access hazard between pools with three-sided fences (child-safe doors and windows) and pools with four-sided fences (RR = 10.98). This result is difficult to put on a comparative basis with the other estimates for relative risk though it demonstrates the increased risk associated with this mode of drowning. It should also be noted that the small sample size for the Barker et al finding (analysis (b)) results in much higher statistical uncertainty in the result and this can be seen in the much greater width of the confidence interval. Also while the analysis indicates that there is a genuine difference between three-

sided and four-sided fencing at the 95% level the lower limit (1.33) is much closer proportionately to zero than is the case for the other studies.

What can we conclude from these studies?

Epidemiological studies are in effect statistical analyses and while a significant relationship may be observed it is not possible to identify cause and effect. This criticism applies to the studies reviewed above²¹. Even though the results in table A2.1 are statistically significant at the 95% level, the observed relationship between type of fence and drowning rate may in fact be actually driven by another 'hidden' factor that happens to be correlated with the type of pool fence on an 'incidental' basis. What is meant by incidental here refers to a correlation that exists at the moment (or during the time period covered by the studies) but is not inextricably linked. Specifically, policy interventions aimed at improving swimming pool fences may not necessarily change the incidental factor(s).

The prime candidate for such a factor is level of adult supervision. It is no exaggeration to say there is universal agreement that there is no substitute for strict adult supervision of young children to ensure water safety. This consensus of views in regard to supervision was reinforced in the submissions received during this review. Even the strongest supporters of strict requirements for pool barriers recognise that the pool barrier should be viewed as a last resort defence in instances when adult supervision has failed.

The improved safety performance (lower drowning rate) observed for the type 2 fences in the comparisons in table A2.1 may be claimed, quite plausibly, to have less to do with better fences than with better supervision. For example, it could be hypothesised that parents who invest in superior pool barriers will also be more conscientious in keeping an eye on their children. If this is indeed the case, then government may be better advised to spend more resources on public awareness campaigns rather than requiring pool owners to spend resources on meeting more stringent pool fence standards.

On the evidence of currently available information there is no objective basis for rejecting outright the above hypothesis. The observed patterns could be explained by incidental correlation between fence quality and level of adult supervision. However, in our view this is an unsatisfactory explanation and fails as a sound basis for policy making. While there is no argument that proper adult supervision is the best defence against toddler drowning the reality is that there remains the real risk of lapses even in the most attentive parents.

The major thrust of system design to address potentially hazardous situations is to lessen the probability of human error and, when human error inevitably occurs, to reduce the expected consequences. In this regard, the main effect of the requirement for a pool fence at all is to minimise consequences of human error. On the other hand, it may be argued that a move to require four-sided fences rather than three-sided fences is an instance of reducing the risk of human error.

It has been argued in a number of submissions, particularly those from some members of the public, that pool owners may be lulled into a false sense of

²¹ These papers refer to the 'epidemiology' of swimming pool immersions or drownings so that the definition used in this report is specialised in the sense stated above.

security through believing that the pool barrier will always be effective in denying access to the pool by small children, and be less attentive in their supervision.

One submission argued that there is some evidence that this has occurred but the evidence is less than fully convincing. If the effect were in fact genuine, then the 'true' effectiveness of pool barriers would be higher than indicated by the three studies summarised in table A2.1 (since lower parental supervision would have taken away some of the safety protection in the observed drowning rates). On the other hand, to capture this higher level of protection, the government would need to make pool owners aware of the limitations of pool barriers and to counter this overconfidence so as to remove the 'incidental' correlation.

Compliance

The above discussion relates to effectiveness of pool barriers that meet the statutory requirements, in other words that all pools are fully compliant. The idealised level of effectiveness, as quantified by the abatement in risk of toddler drownings, will be reduced in practice for cases where a higher quality of barrier is mandated to the extent of the number of non-compliant pool barriers and the seriousness of the non-compliance.

The research reported in van Weerdenburg et al (2003) demonstrates that there is substantial non-compliance with the Act. The study also found convincing evidence that the actual level of non-compliance is determined in large part by how zealous the council is in inspecting pools. For example, two councils that had no active inspection programs recorded non-compliance rates in excess of 50%, while a third council that had conducted routine inspections recorded non-compliance rates below 5% for those pools where the compliance status was known.

It should be noted that the Act provides for certain powers of inspection to councils, including powers to enter private property for the purpose of monitoring compliance. However, the Act at the moment does not mandate councils to undertake inspections. This matter is discussed in Part 3 of the main body of the report.

A2.2 Efficiency

Efficiency as applied to a review of government intervention is about getting the most value for your dollar or, in economics jargon, allocating community resources to their most valued use. Basically, government intervention can be justified only if it makes the community 'better off' in some sense. Economics has made definite the concept of *better off* to mean that the benefits associated with some proposed action exceed the costs.

Efficiency not only provides a criterion for the worth of proposed government action: the concept of efficiency (in the economics sense) provides a rule for deciding 'how much' (what level) of government intervention is optimal. In the case of swimming pool safety, as with other regulation, it is a waste of resources to attempt to eliminate all risk in regard to drowning in home swimming pools (as one submission said, the only way to eliminate all risk is to ban swimming pools). As risk is progressively reduced, the reduction of the next quantum of risk becomes increasingly expensive (assuming 'the low hanging fruit have been

picked first'). The rule to find the optimal level of regulation is: continue to reduce risk up to the point where the marginal cost of risk reduction equals (or exceeds) the marginal benefit as measured by reduced risk of drowning.

The death of a child by drowning is an unqualified tragedy, but so is the death of a child by any other means. Resources spent on reducing risks of drowning in residential pools have an opportunity cost: these resources have an alternative use in saving lives elsewhere, or in increasing community welfare in some other area. A major aim of a review such as this one is to provide a sound basis for policy development and decision making that maximises the benefits for NSW as a whole.

Costs of pool fences

Estimates for the costs of pool fences have been obtained from the pool fence industry. One submission also contained costings for a pool fence. It will be assumed in this report that the cost of a pool fence for a standard size pool on a block of 'average' difficulty is \$3000. This is for the minimum standard fence that would be needed to comply with the legislation, on the basis that to go beyond the minimum is a decision made by the pool owner to satisfy taste or in accordance with their preferences.

It has not proved possible to arrive at estimates for the increase in costs for pool fences if any of the exemptions were removed for new pools. In the case of pools on large properties and on waterfront properties the costs of removing the exemption are expected to be similar to the above cost estimates for a pool fence. It is true that costs for child-safe doors and windows should be netted out of these estimates but the costs are likely to be fairly low.

In the case of pools on small properties (where the removal of exemptions would be the difference in costs between a three-sided fence and a four-sided fence) estimating the impact on costs is rather more difficult. In dollar costs it may well be that the construction of a four-sided fence is merely the additional cost of a fourth side (though once again the costs of child-safe doors and windows should be netted out).

The greater cost to pool owners may well be in the loss of pleasure and amenity they derive from a swimming pool. In extreme cases, where the property is 'difficult' or the layout of buildings imposes constraints on pool location, the requirement for a four-sided pool fence may mean that a swimming pool is unable to be placed on the property. The cost to the property owner then is that they would have to do without a swimming pool or more precisely the enjoyment they would derive from a pool. Economists measure this cost as the loss of consumer surplus derived from the installation of the pool defined as the difference in the 'willingness to pay' (which reflects the value they obtain from the pool) and the actual price.

Similarly, the requirement to refit a four-sided fence to an existing pool with a three-sided fence is likely to result in costs that go beyond the financial items associated with the pool fence itself. Swimming pools (and fences) are an integral part of people's outdoor areas, and landscaping and general design would have been undertaken subject to the constraints of the statutory requirements applying at the time of installation. Changes in requirements for

fences for existing pools can be expected to impact on, and be difficult to accommodate in, the existing landscaping and layout.

Also there is the impact on social life and activities. Pools are part of outdoor activities and risks of drowning are minimised by curbing non-water related activities within the pool enclosure. This is probably at direct variance to what a lot of people would like to do.

These costs (financial as well as the more intangible social and aesthetic impacts) are likely to be specific to individual pools and no objective estimates are available. Instead we will return to our assumed cost of a pool fence in the standard case of \$3000. It is convenient to put this capital cost in annualised terms, where the present value of the annualised costs equals the original cost. Assuming a life of 30 years and a discount rate of 3% real (in the absence of inflation), the annualised cost for a \$3000 pool fence is \$172²². To this must be added the costs of maintenance, mainly for the gate and particularly the latching mechanism, though these are likely to be relatively low and are assumed to be incorporated in the annualised cost of for the purpose of this report.

Benefits

The benefits of more stringent regulation are realised as reduced drownings and the consequences of non-fatal immersions.

The Act currently requires four-sided fences for all non-exempt pools constructed since 1990 and three-sided fences with child safe doors and windows for pools built before then. Consistent with the treatment of effectiveness in Chapter 3 of this report and the more detailed discussion in Appendix A2.4, the approach adopted in this section will assess the benefits (reduction in risk) when going from a three-sided fence (with child-safe doors and windows) to a four-sided fence for a representative pool.

A major difficulty commonly encountered in impact assessment is defining quantitatively the state of the world that would occur if there was a change in the current regulatory requirements, since this state of the world cannot be observed. In the case of swimming pool fences, as has already been pointed out, the difficulty is exacerbated due to gaps in information to define the status quo. The approach adopted here reduces this problem to the need to make one assumption and this is discussed below.

The first task is to decide on which estimate to be adopted for the relative risk. Of the three research reports discussed earlier in Appendix A2.1, the one that most closely approximates the difference between new and 'existing' pools under the Act is the study by Barker et al (2003). The findings from what was denoted analysis (b) in table A2.1 are not really applicable to the current assessment and this is reflected in the rather high estimate for the relative risk (RR) relative to the other estimates in table A2.1. Instead we have taken the RR estimate of 2.88 from analysis (a) for the relative risk associated with static non-compliance between three-sided and four-sided fences. This is higher than the estimate of

²² The choice of discount rate is often contentious. A 3% discount rate is consistent with the discount rate used for the benefits calculations but these relate to loss of life rather than financial outlays. NSW Treasury recommends a discount rate of 7% real for use in economic appraisals of capital proposals and this would generate annualised costs of \$257. However, 7% real is above the interest rate that many pool owners could borrow money for a pool fence.

RR determined in the study by Stevenson et al (2002) equal to 1.78. In theory this latter RR estimate, since it compares drowning rates for three-sided fences where the status of doors and windows is unknown, should be higher than the RR for the situation we wish to analyse where the doors and windows are required to be child-safe (though the estimate for RR by Stevenson et al (2002) is in fact lower than the estimate by Barker et al (2003)). However, the data sample in the Barker et al study was larger than that used in the analysis by Stevenson et al, and it is suspected that the contextual information on each of the drownings was rather more robust.

In the following discussion, we change our notation slightly, and let the subscript 3 refer to pools with three-sided fences (with child safe doors and windows) and the subscript 4 to refer to pools with four-sided fences.

The benefit measure of a four-sided fence relative to a three-sided fence is the difference in the probability of drowning for pools with a three-sided fence (p_3) and pools with a four-sided fence (p_4). In symbols

$$\text{Benefit} = p_3 - p_4$$

where

$$p_3 = d_3/n_3$$

$$p_4 = d_4/n_4$$

$$RR = p_3/p_4$$

and d_3 , d_4 are the number of drownings in pools with a three-sided fence and a four-sided fence respectively, and n_3 , n_4 are the corresponding number of pools.

While by necessity we have made use of the estimates of the relative risk derived in studies interstate, for estimates of the probabilities of drowning (p_3 and p_4) it seems more valid to use information on the NSW situation. Estimates for these probabilities are derived as follows. It has been assumed that there are no unfenced pools.

The total number of pools in NSW is given by

$$N = n_3 + n_4$$

and the total number of drownings by

$$D = d_3 + d_4$$

In any year, we know N and D , and from this can compute the drowning rate (probability of drowning in all pools in NSW – with any type of fence) using the formula

$$\beta = D/N$$

By simple algebra we can express the number of drownings in pools of each type of fence in terms of the other variables

$$d_3 = \frac{RR \cdot n_3 \cdot \beta \cdot N}{(n_4 + \beta \cdot n_3)}$$

$$d_4 = \frac{n_4 \cdot \beta \cdot N}{(n_4 + \beta \cdot n_3)}$$

The benefit of reduced probability of drowning is given by

$$\text{Benefit} = \frac{\beta \cdot N \cdot (1 + \text{RR})}{(n_4 + \beta \cdot n_3)}$$

Currently, the total number of pools is estimated to be $N = 300,000$. The number of drownings varies from year to year, and the proportional variation is significant given that the numbers of drownings are small. Since 1997, the trend line appears reasonably flat, and the rounded mean number of drownings is $D = 6$ per year corresponding to an annual drowning rate of 20 per million pools.

To proceed it is necessary to know the number of pools with barriers of each type and there are no estimates for the number of pools disaggregated by fence type in NSW. It is necessary to make an assumption as to what the breakdown is.

In 1990 there were an estimated 180,000 swimming pools in NSW and this number has now grown to approximately 300,000. Since the pools constructed before 1990 ('existing' pools) are exempt from the requirement for four-sided fences, the bounds for the number of pools with three-sided fences are:

- upper bound $n_3 = 180,000$ assuming that the exemptions for all 'existing' pools have been taken up (no 'existing' pools have four-sided fences), and
- lower bound $n_3 = 0$ (zero) assuming that no exemptions for 'existing' pools are currently taken up (all three-sided fences for 'existing' pools have been converted to four-sided fences).

Both of these bounds are rather unrealistic, so we also report results of the analysis for the mid-point of $n_3 = 90,000$. The results are presented in table A2.2.

It can be observed that the benefit estimate is not over-sensitive to the assumption on the number of pools with three-sided fences, the reduction in drowning rate ranging from 17.7 to 37.6 per million pools for an unrealistically broad range of possible numbers of three-sided fenced pools. Expressed in probability terms, at the mid-point for n_3 the annual probability of a toddler drowning in a pool with a four-sided fence is 24.0×10^{-6} less than in a pool with a three-sided fence.

Table A2.2: Benefit calculations (between 3-sided and 4-sided fences)

	Mid-point for n_3	Lower bound for n_3	Upper bound for n_3
Number of pools – total $N = 300,000$			
n_3	90,000	0	180,000
n_4	210,000	300,000	120,000
Number of drownings per year – total $D = 6$			
d_3	3.3	0.0	4.9
d_4	2.7	6.0	1.1
Drowning rate per million pools			
d_3/n_3	36.8	57.6	27.1
d_4/n_4	12.8	20.0	9.4
Reduction in drowning rate per million pools			
Benefit	24.0	37.6	17.7

Near-drownings

According to data extracted from the NSW Hospital Admission Collection (NSW Health 2005), there were an average of 36 hospitalisations per year of children aged 0-4 years²³ for drowning and submersion while in, or following a fall into, a swimming pool over the three year period 2002/03 to 2004/05, after excluding transfers and type change admissions. Over the same period there were 5 fatal drownings per year (assumed to be included in the 36 hospitalisations). This suggests on average 6 non-fatal hospitalisations for every fatality associated with a home swimming pool.

It is not known how serious the health consequences were for these non-fatal hospital admissions. In their survey of child health specialists Ross et al (2003) report that the paediatrician judged some neurological impairment was evident within six months in 7% of all non-fatal immersions, and that in 5% of cases the impairment was judged to be serious. This is consistent with the findings by Pitt and Balanda (1991) on severely brain damaged children as a result of unintended immersions:

- 15% of all immersions resulted in 'poor outcomes' (10 drowned and 5 suffered severe neurological sequelae);
- 5% to 10% of all survivors now suffer severe neurological sequelae (citing other research).

From these figures the assumption has been made that each year on average approximately 3 children (10% of 31 non-fatal admissions or half the number of the 6 fatalities) per year suffer severe brain damage as a result of non-fatal immersions in home swimming pools.

Disability adjusted life years (DALY)

The concept of disability adjusted life years was introduced by the World Health Organisation (WHO) in the Global Burden of Disease study. The WHO website provides the following description²⁴:

'DALYs for a disease are the sum of the years of life lost due to premature mortality (YLL) in the population and the years lost due to disability (YLD) for incident cases of the health condition... One DALY represents the loss of one year of equivalent full health.'

$$\text{DALY} = \text{YLL} + \text{YLD}$$

The years of life lost (YLL) basically correspond to the number of deaths multiplied by the standard life expectancy at the age at which death occurs.

$$\text{YLL} = D * L$$

where:

D = number of deaths due to drowning in home swimming pools

L = standard life expectancy at age of death in years

WHO introduced age-related factors or weights into the computation of YLL but age has been ignored for YLL in this report.

²³ There were 7 hospitalisations recorded over the three years in the 5-9 years old age group, suggesting that including 5 year olds would increase the 36 hospitalisations per year to at most 38 per year, though more likely 37 per year.

²⁴ At <http://www.who.int/healthinfo/boddaly/en/index.html>

DALYs due to disability arising from non-fatal immersions are incorporated through the YLD measure. To estimate YLD the number of incident cases in a time period is multiplied by the average duration of the disease and a weight factor that reflects the severity of the disease on a scale from 0 (perfect health) to 1 (dead). The basic formula for YLD is the following:

$$YLD = I * DW * L$$

where:

I = number of incident cases

DW = disability weight

L = average duration of the case until remission or death (years)

The disability weight for the 'severe neurological sequelae' would be expected to be high, given that it is assumed that there is little hope that the child will be able to lead a normal life. The WHO publication on disability weights (Mathers et al 2003) does not include an entry strictly relevant for the brain damage suffered in near-drowning events, but disability weights for neurological sequelae for different diseases range up to a maximum of 0.45 to 0.47 for malaria. Accordingly we have assigned a disability weight of 0.5. We have taken L to be life expectancy, given that there is no real chance of remission. Mathers et al (1999) suggest a disability weight for all near-drownings of 0.211 though this seems to be rather high. This estimate was used in the case study in Volume 2 of the Enhealth guidelines (DoHA 2003b) summarised in Appendix 3.

The total number of DALYs due to immersions in one year is then given by life expectancy multiplied by 7.5 (6 YLL plus 1.5 YLD). Life expectancy for two year olds is 76.2 years for males and 81.2 years for females²⁵. Given the higher representation of males in reported immersions the weighted average life expectancy is 78 years. In aggregate, immersions each year in NSW home swimming pools are responsible for an estimated 585 DALYs.

Monetary valuation

It must be emphasised that the real benefits from improved pool barriers are realised as a combination of the reductions in pool drownings and in the severe neurological sequelae associated with non-fatal immersions, as discussed above.

It is often an aid in policy making to express these benefits in monetary terms using the concept of a statistical value of life (VSL) and measures derived from the VSL. VSL does not attempt to state what the life of a person is actually worth, rather it is a measure of the trade-offs that society might make between expenditures on policies that reduce the risk of death (and injury or ill health) and the expected reductions in mortality and morbidity. This reflects, at the community level, the trade-offs that individuals make in their day-to-day lives of money against risk, for example by driving rather than travelling by air which is safer (and faster) but more expensive.

One way to conceptualise VSL is that it allows comparisons to be made across different policies or programs that have as their major objective a reduction in mortality and morbidity. Economics theory suggests that the most efficient

²⁵ Comcare life expectancy tables at http://www.comcare.gov.au/_data/assets/pdf_file/650/Life-Tables-12-2004.pdf updated January 2005

outcomes occur when the marginal cost of saving an additional life is equalised across all causes of death (or disability), for example deaths avoided through road safety initiatives, medical research or, as in the present review, immersions in home swimming pools. More contentiously, the use of VSL can also compare the benefits from programs that reduce mortality and morbidity with the community benefits from other government activity where the actual estimate adopted for the VSL would play an important role in allocating government and community resources.

Appendix A2.4 provides additional discussion on these matters. For the purpose of this review we have adopted a VSL of \$2.5 million following the recommendation in the Enhealth Guidelines (DoHA 2003a)²⁶. Assuming that this VSL has been estimated for a 35 year old (with a life expectancy of 45 years) gives a cost for each DALY of \$102,000 using a discount rate of 3% real. The total cost for NSW each year of immersions of young children in home swimming pools each year is then estimated approximately \$23 million (in present value terms).

We now return to table A2.2 and the accompanying text, and recast the results in the table in terms of DALYs and monetary valuations (it is assumed that the ratio of non-fatal immersions with severe neurological sequelae to fatal drownings are the same for pools with three-sided and four-sided fences).

From table A2.3 below, it is seen that for the case of the mid-point for the range of n_3 , the reduction in DALYs each year between a pool with a three-sided fence and a pool with a four-sided fence is 0.00234 (2.34 per thousand pools). This has a dollar valuation of \$92.

Table A2.3: DALYs and monetary valuation

	Mid-point for n_3	Lower bound for n_3	Upper bound for n_3
Number of pools – total $N = 300,000$			
n_3	90,000	0	180,000
n_4	210,000	300,000	120,000
Number of DALYs each year – total $7.5 * 78$ (life expectancy)			
$DALY_3$	323	0	475
$DALY_4$	262	585	110
DALYs per thousand pools			
$DALY_3/n_3$	3.59	5.62	2.64
$DALY_4/n_4$	1.25	1.95	0.92
Reduction in DALYs per thousand pools			
Benefit	2.34	3.67	1.72
Dollar valuation per pool: three-sided fence to four-sided fence			
	\$92	\$144	\$68

The analysis has not included health care costs for children who survive immersions. The estimates for health care costs used in the case study in Volume 2 of the Enhealth guidelines represent less than 5% of the costs due to loss of amenity and this is within the order of uncertainty of the estimates in table A2.3.

²⁶ In the four years since the publication of the Enhealth guidelines, inflation has been a little over 10% which would raise the VSL estimate to \$2.75 million and increase all the monetary valuations of benefits presented in this report by 10% as well.

Assessment

The cost of a pool fence is estimated to be approximately \$170 on an annualised basis. This is clearly considerably above the monetarised estimates in the last row of table A2.3. In fact, the relative risk would need to increase to around 10 for the benefits to outweigh the costs.

However, it is invalid to make the comparison of the benefits with the cost of the fence in total, but rather the difference in costs between a three-sided fence and a four-sided fence. While there are no data on the cost difference, we suspect that the difference in dollars could be quite low in many cases. For a block that provided average difficulty for installing a pool, the additional cost is involved in the fourth side of the pool, net of the costs of child-safe doors and windows. It is further suspected that, at least in the case of new pools, a more significant cost may be due to intangible effects, such as constraints on the design and use of the pool area. Such costs of course are very pool specific. But overall, it would seem that the analysis presented in this section supports the requirement in the Act for four-sided fences on new non-exempt pools.

The conclusions are rather different in the case of upgrading an existing three-sided fence to a four-sided fence. In this case, the old fence may not be able to be used at all. For example, a style that matches the existing fence may no longer be available, or a four-sided fence may necessitate some significant changes in landscaping or configuration of the pool area. In fact there may be an additional cost in demolishing the existing fence and its removal. If, in effect, a new fence needs to be installed, then the above analysis suggests that this cannot be justified on cost benefit (efficiency) grounds.

Compliance

The estimates of benefits in table A2.3 and the related text provides a basis for assessing the merit of additional resources to promote compliance. At the moment, the total annual cost of immersions in swimming pools is estimated to have a monetary valuation of \$23 million. A large part of this total is due to non-compliance.

Table 8.1 in the body of the report contains estimates of the costs of inspecting once all 300,000 pools in NSW and these are in the range \$15 million to \$25 million. If the inspections were carried out once every two years, then the upper end of the range for annual costs is \$12.5 million. This level of expenditure would be justified if it delivered reductions in the current rate of immersions of 50 per cent (of \$22 million). Are these reductions feasible? There are two parts to the answer: the number of immersions due to non-compliance; and the effectiveness of inspections to improve compliance rates.

Williamson et al (2002) analysed the drowning of 82 children aged 0 to 5 years in home swimming pools over the years 1995 to 2001. They identified defects in the fence as a contributing factor in 34 of the cases (41% of the total), including 15% of pools that had no fence at all. If these percentages still apply to-day, then it suggests that even under full compliance with the Act almost 60% of the current number of drownings would continue to occur (60% is the proportion of pools determined by Williamson et al where a drowning occurred despite a fully compliant pool barrier).

Unfortunately, even a well designed inspection regime may not achieve full compliance. One council staff member indicated that the council had considerable difficulty in compelling pool owners to make the necessary repairs or changes to achieve compliance even, in some cases, after three visits. Also, it is possible only to check compliance on the day of the inspection. Over time, static compliance of pool fences (and in particular gates and latching devices) will deteriorate. The impact on dynamic compliance with even the best inspection regime is advisory only.

The conclusion would appear to be that the analysis does not strongly support substantial resources being allocated to improved inspection and related council activities. This review is unable to provide quantitative comments on the question of enhanced council activities in relation to community education and safety awareness.

A2.3 Equity

Equity is a poorly defined term. The preferred use by many economists relates to fairness in the sense that:

- individuals are charged the same for the same good (or service); and
- resource costs incurred are paid by the user who is responsible for incurring the costs.

There appears to be no issue in regard to the operation of the Act in relation to the first criterion.

The question of user pays arises if councils incurred additional costs in relation to swimming pools, for example to conduct regular inspections or to establish a swimming pool register. User pays is discussed further in Part 3 (Chapter 8) of this report.

There is a further instance of 'costs', being the risk to small children of drowning in home swimming pools. Some pool owners, and others, have argued that pool owners without children should be exempted from the requirements for pool barriers. Some pool owners indicated that they consider they are providing a community service for the benefit of the general public in having a barrier since it provides enhanced safety for other members of the public (children of other adults) while they (the pool owners) derive no benefit. This argument can be criticised on two points:

- a high proportion of pools with childless owners are visited by children [reference]; and
- there is a widely accepted principle that the costs of ameliorating a public risk should be met by the person or firm that generates that risk.

There is a different concept of equity (often at odds with the definition stated above) that is related to the notion of access to certain goods or services that society considers should be open to the enjoyment of everyone. In this regard the costs associated with the statutory requirements for a pool barrier may mean that a swimming pool is out of the reach of some individuals for purely financial reasons. However, it is difficult to argue that a possession of swimming pool is in any way an inherent right for all members of society or that it constitutes. For example, an essential service.

A2.4 Valuation of health end-points - overview

The 'real' costs of unintentional immersions in residential swimming pools are measured by the premature mortality, and the pain and suffering and loss of amenity caused by the increase in morbidity. To this can be added resources spent in treating the trauma of non-fatal immersions (both within the health system and by carers) and foregone production in the future when the child would have reached working age.

Economics is concerned with allocating scarce resources to their most valued use, so the concept of value sits at the heart of economics. On a practical note, it is often very useful in providing advice on policy options to extend an analysis, such as the one reported here, by placing a monetary value on the health impacts. For example, if a policy to reduce drownings in swimming pools is under consideration, the benefits of the policy (measured as the avoided health costs) can be compared directly with the resource costs of implementing the policy (where resources include both government and wider costs). Valuation of health impacts also allows different options to be compared on quantitative grounds.

The valuation of health impacts including premature death has been the subject of ongoing research and practical studies over many years. Notwithstanding the advances made, the subject continues to be contentious. Many people view the very notion of a placing a dollar value on life as ethically abhorrent; others take the view that estimates of such values have little validity in a more practical sense due to difficulties in interpretation. Even within the economics profession, there is considerable disagreement in regard to the best approach to be adopted and how best to handle certain questions of detail. The issue of the (negative) value associated with morbidity has, if anything, more unresolved technical questions.

In terms of premature mortality, it must be emphasised that there is no attempt to place a value on the life of an identifiable person. Rather what is attempted is to determine the 'value of a statistical life' (VSL), which is the central concept in the valuation of mortality. This term is a shorthand way of evaluating the trade-off that people make between expenditures and small changes in the risk of death.

How are such values to be estimated? There are basically two approaches.

Human capital / Cost of illness approach (Col)

As the name suggests, the Col method is based on the 'economic' costs incurred as a result of illness. The costs are measured both as direct costs for treatment of disease, and the foregone production when people die or become ill and are unable to work at their normal levels. In general, Col estimates are based on objective data available on items such as health care statistics and wage rates.

The major drawback of Col method is that it fails to provide any measure of the pain and suffering experienced by people who become ill and the emotional impacts on friends and family, or the loss of enjoyment of life. On a more technical note, the interpretation of Col estimates of foregone production within a welfare economics framework is not completely straightforward.

Willingness to pay approach (WTP)

WTP is an extension of the concept that in well-performing markets the value of a good or service can be gauged by the price charged: a consumer will only purchase a good if the value to the consumer equals or exceeds the price.

WTP estimates have been generated either by specially designed surveys (commonly referred to as the *stated preference method*) or by observing choices made by people in situations where risks can be traded off against financial outcomes (*revealed preference method*). While the WTP approach in theory can capture the entire value (both financial and non-financial) of avoiding premature death or illness, there is considerable ongoing debate in regard to certain issues, and a number of these will be discussed below specifically in regard to deaths from drowning of small children.

As would be expected, WTP estimates for the value of a statistical life (VSL) tend to be higher than Col estimates. It is meaningless to attempt to derive WTP measures from young children. The most common approach to generate VSL estimates is to examine the wages premium paid in risky jobs and relate this to the observed increased incidence of fatalities in these jobs. While this method has been criticised on a number of grounds²⁷, it remains the most popular.

Consistent with the recommendations in the EnHealth Guidelines (DoHA, 2003), we will only use estimates based on the WTP approach, and use the recommended value of \$2.5 million for VSL.

Measures for mortality to be used

It was indicated earlier that VSL is the fundamental concept in valuing mortality. However, many commentators argue that the VSL is not the appropriate measure to be used in assessments of policy, and that a better measure would relate to the number of years of life lost (YLL). In other words the value of an avoided death is not an absolute but rather is determined by the expected number of years that are lost due to early death (or gained by avoiding the early death).

This is of particular significance in relation to toddler drownings. The remaining life expectancy of young children would be expected to be substantially higher than the life expectancy for people who might, say, be killed or suffer trauma in work related incidents.

It is relatively straightforward to move from an estimate for VSL to an estimate of the value for a single year lost by apportioning the VSL over the number of years for an average life expectancy. The value for a single year is proportional to the VSL but not to the avoided number of years of life lost. To account for the observed lower value placed by society and individuals on costs incurred (or benefits received) in the future, the common practice is to 'discount' the value of the later years that are lost (or saved). The discount rate is a major determinant in the magnitude of the YLL results and selection of an appropriate value for the discount rate is often contentious. The benefits of avoided premature mortality

²⁷ For example, it is not known if workers in high risk jobs have the same wage-risk trade-off as other workers; and there are doubts as to the level of awareness workers have of the actual increased risks that they may face.

from a policy intervention would then be calculated as the number of years saved multiplied by the value of a year lost.

Economic assessment of interventions by public health programs and policies commonly adopt the YLL approach and its extensions in making decisions on how to allocate resources. The implicit aim is to maximise the number of years gained within the health care budget.

Morbidity and the DALY approach

As indicated earlier, the concepts of VSL and YLL can be extended to valuing morbidity end-points.

Just as VSL is a measure of WTP to reduce the risk of premature mortality, it is possible to undertake studies to derive estimates of WTP to avoid specified morbidity end-points. It is also possible to estimate the cost of (or the value of avoiding) morbidity by using the human capital or Col approach. However, whatever valuation methodology is adopted the defining feature is that each discrete episode of ill health (or incidence in the case of chronic conditions) is valued.

The alternative for valuing morbidity is the DALY (disability-adjusted life year) approach and this is in some ways analogous to YLL in the case of mortality. This has been used extensively in burden of disease reporting both in Australia (Mathers et al., 1999) and overseas.

The concept of DALY extends the methodology for valuation of number of years lost to the valuation of equivalent healthy years lost by incorporating quantitatively a measure of disability. A DALY provides a quantitative rating of how seriously a disability is viewed by sufferers, where a rating of 0 refers to perfect health (no disability) and a rating of 1 represents death.

The monetary value of one DALY is set to the value (cost) of a healthy life year lost.

Appendix 3: Case study in Enhealth Guidelines Volume 2

Volume 2 of the Enhealth Guidelines (DoHA 2003b) contains four case studies on the application of the principles in Volume 1 for economic evaluation of environmental health planning and assessment. The first case study is titled *Economic Evaluation of Mandatory Fencing of Backyard Pools in NSW*. However, the case study also includes consideration of the government programs to promote community awareness of swimming pool safety, and thus the scope is somewhat wider than the analysis presented in Appendix 2 above.

The approach adopted in the case study is based on the incidence of drownings and other unintentional immersions in swimming pools over the time period 1986 to 1999, which includes the introduction of the Act. The improvement in the drowning rate over this period is related to the distinction of whether a pool is fenced or unfenced only: the form of fencing is not considered. The case study was unable to derive robust statistical relationships between the observed drowning rate per 100,000 pools and such variables as the number of fenced pools and year (with 1990 set to 1).

The following assumptions are made in the case study.

- There were 250,000 pools in NSW in 1991 and the forward and backward projections use a 3 per cent net annual growth rate in pools, which allows for some pools to be taken out of commission.
- The estimated total number of fenced pools assumes that 20 per cent of pools in existence in 1990 were fenced (based on discussions with people in the industry) and that no more of these were fenced after 1990, but that all post August 1990 pools comply with the 1992 Act
- There were four near-drownings for each drowning.
- The costs of pool fencing for the 20 per cent of pools that are assumed would be fenced without the pool legislation are not included in the analysis.
- The costs include the costs of fencing the other 80 per cent of pools built since August 1990, annual inspection and maintenance costs, and expenditures on child-based water safety programs. The latter is included because it is not possible to identify the separate impacts of pool fencing and water safety programs.
- All costs and benefits are estimated in 2002 prices and discounted back to year 1990, when the initial legislation came into operation.
- Average cost of installing pool fencing is assumed to be \$2500. No additional fencing installation costs are assumed to be incurred after 2001.
- Cost of annual inspection is assumed to be \$45.
- Pool inspection rate is assumed to be 25 per cent per annum.
- Annual cost of fence maintenance is assumed to be \$25.
- Education and public safety programs total \$4.06 million in 2001/02 made up of RLSS expenditure estimated at \$2.53 million and Department of Sport and Recreation an additional \$1.53 million.
- Expenditures are calculated to have risen by a real 2.5 per cent per annum between 1990 and 2002 in line with the assumed growth in the number of pools. It was further assumed that expenditures will have to be retained at \$4.0 million per annum in 2002 prices to obtain the benefits of

- pool fencing and to maintain the reduction in drownings that has been achieved.
- For the evaluation, it is assumed that the pool safety programs were responsible for half of the observed reduction from 10 to 5 drownings per year during the 1990s (i.e. for saving five deaths per annum by 2001), and half the reduction in the related number of near-drownings.
 - Savings in acute care costs were estimated at an average of \$5000 per case
 - Savings in long-term (chronic) care costs were based on the finding that permanent neurological damage occurs in some 5 per cent of hospitalisations attributable to near-drowning (Ross et al, 2003). The Steering Committee for the Review of Commonwealth/ State Service Provision (1998) estimated that the cost of accommodation, community support, respite care and employment services totalled \$25,822 per disabled person (assumed to be annual costs). These costs are incurred over the life of the damaged child and the present value for these long-term care costs was approximated at \$500,000 per damaged person.
 - For quality of health the disability adjusted life year (DALY) weight for drowning is 0.211. Given that the accident occurs to a young child, this is equivalent to losing 21.1 per cent of the value of life (or \$527,000 in present value terms).

The results of the case study are presented in Table A3.1. It can be seen that the major costs occur relatively early in the analysis period, up to the year 2001. The benefits (in avoided drownings and near-drownings) build up to a maximum in 2001 and the annual rates are thereafter assumed to remain constant. As a consequence, the longer the period of analysis, the higher the overall net benefits. At 3% real discount rate, the present value of the benefits are estimated to exceed the present value of the costs by 2015.

The case study is an interesting example of the application of economic evaluation in the environmental health area. The findings are different from those reported in this paper, but given the different scope and case study restriction to the fenced/non-fenced pool distinction, as well as major differences in the assumed values of critical parameters, our view is that the differences are not unexpected and do not invalidate the analysis presented in the present report.

Table A3.1: Cost and benefit summary (\$million)

Year	Total costs	Total benefits	Net benefit
1990	7.06	0.00	-7.06
1991	19.38	0.00	-19.38
1992	19.70	0.00	-19.70
1993	20.03	4.73	-15.30
1994	22.40	4.73	-17.67
1995	22.76	9.46	-13.30
1996	25.15	9.46	-15.69
1997	25.55	14.19	-11.36
1998	25.95	14.19	-11.76
1999	28.38	18.92	-9.46
2000	26.79	18.92	-7.87
2001	27.19	23.65	-3.54
2002	7.23	23.65	16.42
2003	7.23	23.65	16.42
2004	7.23	23.65	16.42
2005	7.23	23.65	16.42
2006	7.23	23.65	16.42
2007	7.23	23.65	16.42
2008	7.23	23.65	16.42
2009	7.23	23.65	16.42
2010	7.23	23.65	16.42
2011	7.23	23.65	16.42
2012	7.23	23.65	16.42
2103	7.23	23.65	16.42
2014	7.23	23.65	16.42
2015	7.23	23.65	16.42
PV* @ 5%	252.31	206.33	-25.97
NPV@ 7% 1990–2015 -41.88			
NPV@ 5% 1990–2015 -25.97			
NPV@ 3% 1990–2015 +1.02			
NPV@ 7% 1990–2020 -30.28			
NPV@ 5% 1990–2020 -5.97			
NPV@ 3% 1990–2020 +35.91			

Source: Table 2.6 in DoHA (2003b)



DEVELOPMENT ASSESSMENT REPORT
Development Application No 08/1991

Proposal:	'In Principle' Approval for a Dwelling
Property:	Lot 107 DP 755967 (Portion 107) Woodstock Rd Milton
Applicant:	Rygate & West
Reference:	DA 08/1991
Zoning:	Part 7(a) Environmental Protection (Ecology) & 7(d1) Environmental Protection (Scenic) Under Shoalhaven Local Environmental Plan 1985 (as amended) (SLEP 1985)

BCA Classification:

1. Proposal

The Development Application has been lodged with Council to seek consent for an 'in principle' approval of a dwelling house on the subject site. The application proposal nominates a building envelope with dimensions of 50m x 50 m for the future dwelling. The application states that the land will be accessed via the construction of an all weather access pavement within the currently unformed Crown road reserve.

The Development Application submission states that the provision of a future dwelling on the subject site is permissible as the site is considered to be a '1964 holding'. This issue is discussed elsewhere in this report.

Relevant Background

Council has previously considered a development application DA 92/2326 over the subject site and considered the issue whether the land met the

definition of an 'existing holding' under clause 11(2) of the SLEP. It found that it did not, and as such a dwelling could not be approved on the land. Council provided the following written advice by way of letter dated 17 September 1993:

'Although this land is isolated from the rest of the building by Stony Creek it is still adjacent to other lots in the holding and is therefore considered to fit within the definition of adjoining or adjacent. I am aware of the physical circumstances surrounding the practical use of the Portion 107 as well as the previous practice in being able to utilise this property by crossing Stony Creek further to the north. However, the definition of an existing holding does not refer to how adjacent lots are used and must therefore be interpreted as written.'

2. The Site

The subject site is legally described as Lot 107 DP 755967 Woodstock Road Milton.

The subject site has an area of 19.42 hectares. The subject site is located at the southern end of the unformed section of Woodstock Road. The site is bounded to the west and south of Stony Creek (tidal). The subject site is open grazing land with sparse tree cover. An area of SEPP 14 Wetland is located along the south east boundary of the property.

3. Statutory Considerations

The subject land is zoned Part 7(a) Environmental Protection (Ecology) and 7(d1) Environment Protection (Scenic Protection) under SLEP 1985 (as amended).

The objectives of the Zone 7(a) (Environmental Protection (Ecology)) are as follows:

- a) to protect and conserve important elements of the natural environment, including wetlands and rainforest environments;*
- b) to maintain the intrinsic scientific, scenic, habitat and education values of natural environments;*
- c) to protect threatened species and habitats of endangered species;*
- d) to protect areas of high biodiversity and value; and*
- e) to protect and enhance water quality in the catchment*

The objectives of the Zone 7(d1) (Environmental Protection d1(Scenic) Zone) are as follows:

- a) to conserve and enhance scenic quality;*
- b) to protect natural and cultural features of the landscape which contribute to scenic value; and*

- c) to ensure that development is integrated with the landscape values of the area.*

Comment:

The nominated building envelope is located in a highly disturbed area which has been utilised for grazing purposes. A future development application detailing the design of the dwelling may be able to demonstrate satisfaction of the relevant objectives.

Clause 15 - Dwelling Houses

A dwelling house may be erected on land zone 7(a) or 7(d1) if it complies with the requirements of Clause 15 of SLEP 1985. The development application submission contends that Lot 107 DP 755967 forms a separate and complete 1964 holding as defined in the SLEP 1985. This issue is discussed elsewhere in this report.

Clause 22 – Activities in Zone No 1(c), 7(a), 7(c), 7(d1), 7(d2), 7(e), 7(f1), 7(e), 7(f1), 7(f2) and 7 (f3)

The application has not identified any vegetation removal in association with this development proposal.

Clause 27 Development on acid sulphate soils

Part of the subject site is identified as having a probability of being affected by acid sulphate soils. However, the nominated building envelope is located outside this area. No specific measures are therefore considered necessary.

Clause 28 Danger of bush fire

The subject site is identified as bushfire prone land. The NSW Rural Fire Service has provided recommended conditions of consent to minister the risk of bush fire attack and the provide protection for emergency services personnel and residents. Any approval of residential development would be required to incorporate these requirements.

SEPP 14 Wetlands

Part of the subject site is mapped as containing SEPP 14 Wetlands. This area is remote from the proposed dwelling envelope. No particular issues are identified in respect to this proposal and the SEPP 14 Wetlands.

SEPP 71 Coastal Protection

The subject site is identified within the coastal zone and part of the subject site is identified as a 'sensitive coastal location'. Accordingly consideration of the relevant provisions of the SEPP are provided as follows:

1. Aims of Policy	Comment:
(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and	The proposed dwelling envelope is outside the sensitive coastal location area identified on the site. Any future development on the site would need to detail the appropriate protection or management of the attributes of the coastal locality.
(b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and	Public access is available on the opposite site of Stony Creek.
(c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and	Public access to the nearby coastal areas will not be reduced by the proposal.
(d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and	No items of Cultural Heritage are identified on the subject site.
(e) to ensure that the visual amenity of the coast is protected, and	The application is for an 'in principle' approval only; no detailed designs have been provided; Appropriate design or treatments to ensure the protection of the visual amenity of the coast is protected.
(f) to protect and preserve beach environments and beach amenity, and	The proposal will not impact on beach environment and beach amenity.
(g) to protect and preserve native coastal vegetation, and	No removal of native coastal vegetation is required as a result of this proposal.
(h) to protect and preserve the marine environment of New South Wales, and	The proposed development will not negatively impact on the marine environment of New South Wales.
(i) to protect and preserve rock platforms, and	No future works is associated with rock platforms.
(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the <i>Protection of the Environment Administration Act 1991</i>)	Any future works will be required to be undertaken to ensure the protection of the surrounding environment and to ensure the no adverse impacts of the surrounding environment.
(k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and	The scale of the proposal could be provided to ensure development is in keeping with the natural environment to ensure the protection of the visual quality of the area.
(l) to encourage a strategic approach to coastal management	Rural residential development is permissible in the locality.

Matter for Consideration (continued)	Comment
b) existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,	The proposed works will not impact on public access to the coastal foreshore area.
(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,	Public access already available in the areas near the subject site.
(d) the suitability of development given its type, location and design and its relationship with the surrounding area,	The proposed development is a form of development already existing in the locality.
(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a	The development will not result in the significant overshadowing or loss of views of the coastal foreshore.

public place to the coastal foreshore	
(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,	Any future development would need to ensure the scenic quality of this natural area is protected and enhanced.
(g) measures to conserve animals (within the meaning of the <i>Threatened Species Conservation Act 1995</i>) and plants (within the meaning of that Act), and their habitats,	The proposed development will not impact on animals and plants regarding the requirements of TSCA 1995.
(h) measures to conserve fish (within the meaning of Part 7A of the <i>Fisheries Management Act 1994</i>) and marine vegetation (within the meaning of that Part), and their habitats	The proposal will have minimal impact on fish or marine vegetation and their habitats.
(i) existing wildlife corridors and the impact of development on these corridors,	The proposal is not considered to impact on wildlife corridors.
(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,	The subject sites are satisfactorily setback to ensure no impact from coastal processes and coastal hazards.
(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,	No conflict between land based and water based coastal activities has been identified.
(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals	No measures are necessary in regard to this proposal.
(m) likely impacts of development on the water quality of coastal waterbodies,	The proposal has been supported by an on site waste water management study that identifies appropriate recommendations regarding appropriate treatment of waste water on site.
(n) the conservation and preservation of items of heritage, archaeological or historic significance,	There are no items of environmental heritage or know archaeological sites or areas of historical significance on the subject site.
(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,	N/A
(p) only in cases in which a development application in relation to proposed development is determined (i) the cumulative impacts of the proposed development on the environment, and (ii) measures to ensure that water and energy usage by the proposed development is efficient	Issues regarding cumulative impacts would be further explored in a detailed development application proposal.

1964 Holding

A 1964 holding is defined in SLEP 1985 as follows:

'1964 holding means land within Zone 1(a), 1(b), 1(d), 1(g), 7(a), 7 (c), 7(d1), 7(e), 7(f1) or 7 (f3) which at 28 February 1964 was:

(a) the area of a lot, portion or parcel or land in a separate ownership; or

- (b) where a person then owned 2 or more adjoining or adjacent lots, portions or parcels of land, the aggregation of the areas of those lots, portions or parcels; or*
- (c) the remainder of land referred to in paragraph (a) or (b), after the excision of allotments by a subdivision allowed by;*
 - a. clause 11(4) or (9) of Interim Development Order No 1 – Shire of Shoalhaven; or*
 - b. clause 11(7) or (10) of this plan as in force immediately before the commencement of City of Shoalhaven Local Environmental Plan 1985 (Amendment No 127); or*
 - c. clause 11(3), 11(4) or 52 of this plan; or*
 - d. State Environmental Planning Policy No 4 – Development without consent;*

Applicant's Submission

The application contends that Lot 107 DP 755967 forms a separate and complete 1964 holding as defined in part (a) of the definition in the SLEP 1985. The application identifies that on the appointed day being 28 February 1964 the owner of the land also owned neighbouring land being Lot 1 DP 726011 (now identified as Lot 3 DP 1024172).

The application includes a legal opinion from Kearns & Garside Solicitors which is summarised as follows:

- a) The subject land is a 1964 holding as it is the 'area of a lot, portion or parcel of land in separate ownership' where it is physically separated by other land owned by the same person on 28th February 1964 by 30.48 wide public reserve and 30 m wide tidal creek.*
- b) The Standard Macquarie Dictionary definitions of adjacent and adjoining imply that the common meaning of these terms is 'contiguous' or neighbouring'.*
- c) The land can not be readily managed or used for agricultural purposes as part of the landowner's other holdings due to its physical separation and the distance required to travel to Lot 107 from Hobbs Lane, and also as access is not available via an all weather pavement within a road reserve.*

The applicant purports that the land is physically separated from Lot 3 and can not be accessed legally, easily or reasonably from Lot 3 DP 1024172 so that it can not be regularly managed and used as part of the current owner's agricultural activities and so it conforms to the definition of a 1964 holding as it is not contiguous with other lands in the same ownership in 1964.

Comment:

A review of the application has been undertaken and the following comments are made about the applicant's contention that the land is a separate "1964 holding" under part (a) of the definition in the SLEP:

- (a) Council's valuation records confirm that at the appointed day, being 28 February 1964, the owner of the subject land also owned Lot 1 DP 726011 (now Lot 3).
- (b) The subject land and Lot 3 are separated by Stony Creek and a Crown Reserve which was established as early as 1894. This Reserve is occupied and used by the owner for grazing purposes.
- (c) Council has previously considered a development application (DA 92/2326) over the subject land and determined that the land did not meet the definition of an 'existing holding' under clause 11(2) of the SLEP. The application was subsequently withdrawn.
- (d) The current application has been referred to the Legal Services Manager for review and comment. Legal advice was provided on 8 September 2008 (see the Confidential & Legally Privileged memo on LS78).

In light of the above, the following conclusions have been made about the applicant's submission that the land is a separate "1964 holding" under the SLEP:

- (a) given the history of the Shoalhaven Interim Development Order and SLEP, the phrase "adjoining and adjacent" in part (b) of the definition of "1964 holding" should be construed broadly;
- (b) given the broad interpretation, the phrase "adjoining and adjacent" does not mean contiguous (ie the land abutting another parcel of land), but "close to" or "near by";
- (c) the physical separation of the lots by the creek is considered to be a normal feature of a rural landscape, and is not a reason to conclude the lots are not "adjoining or adjacent" to each other;
- (d) the physical separation of the lots by the reserve is considered immaterial given that the reserve is used for grazing purposes by the owner;
- (e) there has been no change of circumstance since the withdrawal of development application DA92/2326 in 1993 to suggest that a different conclusion should be reached about the status of the land.

In light of these considerations, the subject site is not considered to be a separate '1964 holding' under part (a) of the definition in the SLEP. Therefore the applicant's submission that the site constitutes a '1964 holding' is not accepted.

Legal and Practical Access

The application identifies that legal access to the subject site is via an unformed Crown Road Reserve and it is proposed to construct this road within the unformed road reserve from its junction with Wilfords Lane. No details have been provided to demonstrate both physical and legal access can be provided to the subject site in light of the existing topography and existing access arrangements in place for adjoining development.

4. Public Participation

The application has been advertised in accordance with the provision of Shoalhaven Council's "Community Consultation Policy" adjoining or affected owners were notified of the proposal and (how many?) submissions were received as a result.

Submissions were received from the following residents:

Names & Addresses	Date of Letter	List of Issues (see list below)
Mary Ambrose & Chris Turner RMB 299 Wilfords Lane Milton	6 August 2008	Permissibility of the proposal; Environmental qualities of the subject site; Lack of services; Access provision Visual impact
Peter Fallon 318 Wilfords Lane Milton	6 August 2008	Visual impact Access and service arrangements

The issues raised in these submission are as follows:

Issue 1 –Permissibility of Proposal

As discussed in this report, the subject site has not been identified as a 1964 holding and accordingly consent can not be granted for the proposal under Clause 15(b) of the SLEP 1985

Issue 2 – Environmental qualities

The nominated building envelope is located on an existing disturbed area of the subject site. No removal of riparian vegetation or areas would be involved in the proposal.

Issue 3 – Visual Impact

The proposal relates an ‘in principle’ dwelling only and accordingly no dwelling design has been provided with the application. It is noted that the construction of a new dwelling in the locality would impact visually on the subject site however, such impacts could be minimised through appropriate use of external colours and finishes.

Issue 4 – Access and Service Arrangements

The development application has submitted a waste water management study to address the provision of on site waste water disposal. This report provides recommendations to ensure the system will not result in any adverse impacts on local soils, ground water and surface waters.

Complete details regarding the provision of legal and physical access have not been provided with the application.

5. Referrals

- Department of Lands

Advice was received from the Department of Lands regarding the proposal to gain access via a unformed crown road to the subject site. The Department of Lands has no objection in principal to the proposed development. Any construction of the crown road requires consent from the Department of Lands. Alternatively, the closure of the road and subsequent purchase of the road reserve would be subject to relevant legislative process.

Due to the significant issue regarding the permissibility of the proposal, issues regarding the requirements of the Department of Lands have not be further pursued.

- NSW Rural Fire Service

The NSW Rural Fire Service has provided recommended conditions of consent regarding bushfire protection for the subject proposal.

6. Assessment

Following a detailed assessment of the application having regard to the Heads of Consideration under Section 79C(1) of the Environmental Planning and Assessment Act 1979, the provisions of relevant Local and Regional Environmental Plans as well as all relevant Council DCPs, Codes and Policies, the following matters are considered important to this application.

There was no necessity to refer this application for special comment.

79C Evaluation (1) Matters for consideration—general	Comment
<p>(a) the provisions of:</p> <p>(i) any environmental planning instrument, and</p> <p>(ii) any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority, and</p> <p>(iii) any development control plan, and</p> <p>(iiie) any draft planning agreement or planning agreement;</p> <p>(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), that apply to the land to which the development application relates,</p>	<p>The proposed development is permissible with consent under the zoning. The development however is not identified as being satisfactory to the requirement of Clause 15 of SLEP 1985 in respect to the criteria for dwellings in the subject zoning.</p> <p>15(1)</p> <p>(a) is less then 40 hectares</p> <p>(b) is not a 1964 holding</p> <p>(c) is not a concessional lot</p> <p>(d) is not a concessional lot described in definition (d) of clause 6(1)</p> <p>(e) the lot is not a residue from a subdivision under clause 11</p> <p>(f) is not a lot created under IDO no 1</p> <p>(g) is not a residue lot under 11(7) prior to amendment 127 of SLEP 1985</p> <p>15(1A) the lot was not created under clause 11(3) or (4) for the purpose of a tourist facility.</p> <p>No specific issues are raised in respect to any relevant development control plan.</p> <p>No draft planning agreement or planning agreement area relevant to this proposal.</p>
<p>(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,</p>	<p>The proposal development is inconsistent with the strategic provisions of the SLEP in regards to dwellings in the Environmental Protection zone.</p>
<p>(c) the suitability of the site for the development</p>	<p>The application has not demonstrated that the proposal is suitable in the location.</p>
<p>(d) any submissions made in accordance with this Act or the regulations</p>	<p>The submissions received in respect to this proposal have been addressed elsewhere in this report.</p>
<p>(e) the public interest.</p>	<p>The development proposal is not considered to be in the public interest as the proposal is not consistent with the</p>

	provisions of SLEP 1985.
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7. Conclusion

I have assessed this application having regard to all relevant matters for consideration under SLEP 1985.

This application has been assessed having regard to the Heads of Consideration under Section 79C(1) of the Environmental Planning and Assessment Act 1979, the provisions of SLEP 1985 and all relevant Council DCPs, Codes and Policies. Following detailed assessment it is considered that Development Application No 08/1991 should be determined by way of REFUSAL.

Recommendation

- A. That having assessed Development Application No 08/1991, it is considered that those relevant matters for consideration under SLEP 1985 have not been. It is recommended that Development Application No 08/1991 now be determined by way of refusal
- B. That Development Application No 08/1991 at Lot 107 DP 755967 Woodstock Road Milton be REFUSED for the following reasons:
 - 1. Further to Section 79C(1)(a)(i) the proposal is inconsistent with the provisions of Clause 15 of Shoalhaven Local Environmental Plan 1985 (SLEP 1985) as the subject site does not meet any of the criteria in 1(a) to (g) nor 1A, in particular, the subject site is not a “1964 holding” as defined by SLEP 1985.
 - 2. Further to Section 79C (1)(b) the proposed development has not satisfactorily demonstrated that physical and practical access is available to the subject site.
 - 3. Further to Section 79C(1)(e) the proposed development is not in the public interest.

Signed officer

date



Decision
Development Application No 08/1991

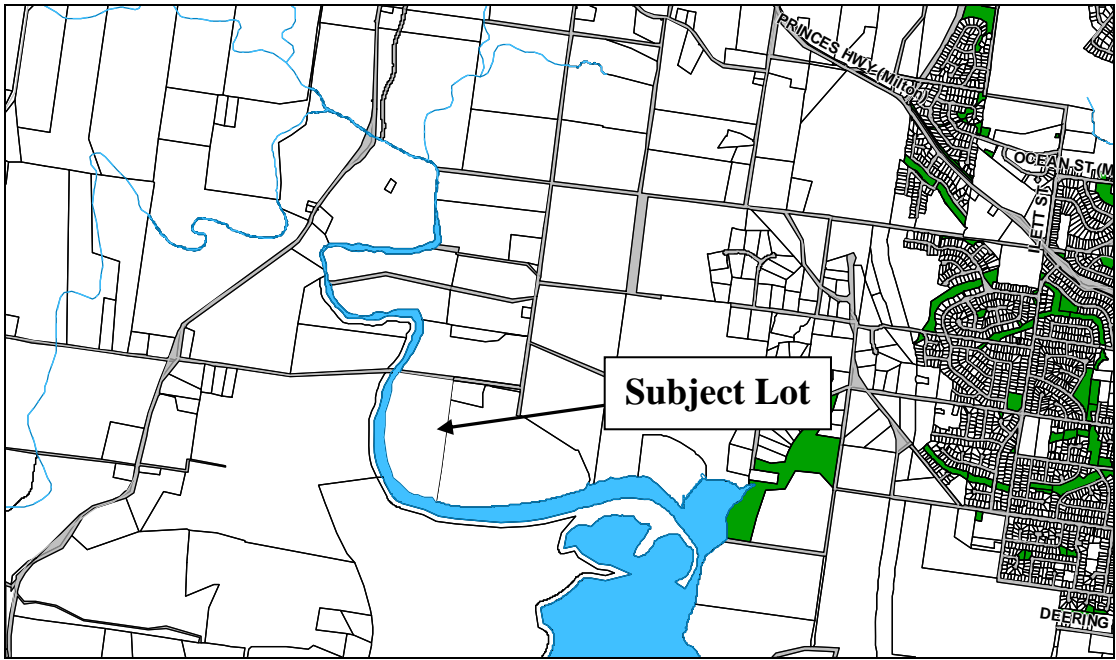
Pursuant to the provisions of Section 80 of the Environmental Planning and Assessment Act 1979, and in accordance with the delegated authority issued by the General Manager – Shoalhaven City Council dated (), Development Application No 08/1991 is determined by the refusal of development consent for the reasons outlined in the attached “Assessment Report”.

Signed

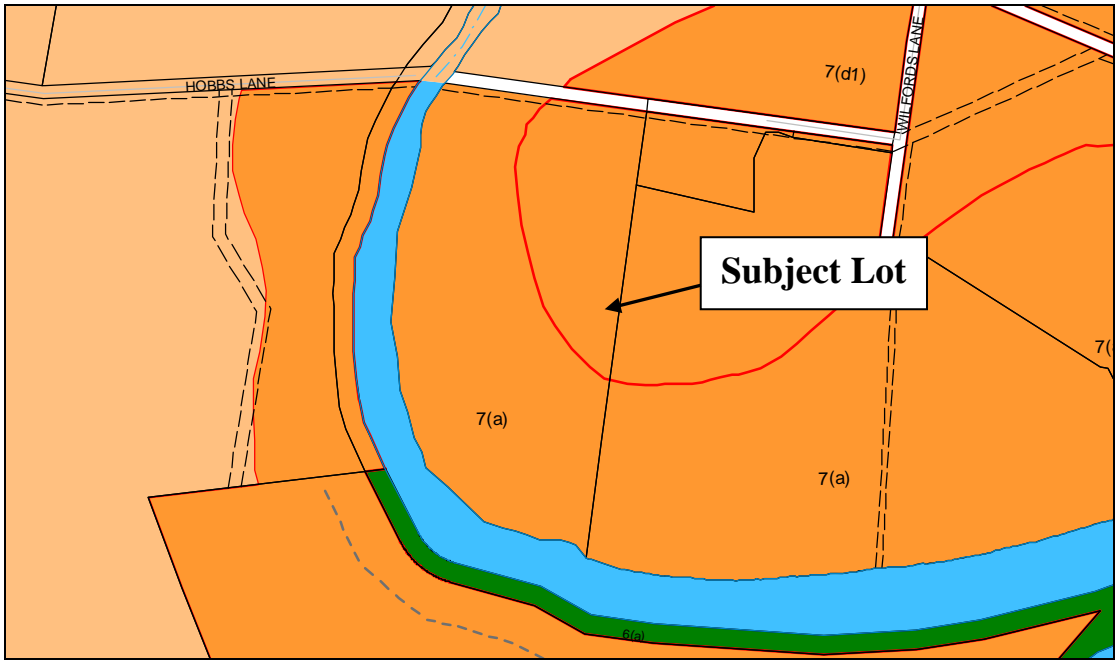
delegated officer

date

ATTACHMENT “B”



ATTACHMENT “C”



G.A. BEASLEY PTY. LIMITED TRADING AS

RYGATE & WEST

(ULLADULLA) ABN 56 056 675 355

SURVEYORS, PLANNERS**ROAD & DRAINAGE ENGINEERS**266 GREEN STREET
ULLADULLA NSW 2539PO BOX 107
ULLADULLA NSW 2539

Shoalhaven City Council

Received

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EMAIL: mail@rygateandwest.com.au

- 5 MAR 2009

General Manager
Shoalhaven City Council
PO Box 42
NOWRA NSW 2541

File No. _____

Referred to: _____ **TF**28th January 2009
Our Ref: U.8179Attention: Mr Tim Fletcher – Director – Development & Environmental Services

Dear Sir

RE: Section 82A Review Request – DA08/1991 – Lot 107 DP 755967 Off Wilfords Lane Milton – for Mr I D Wilford

I refer to Council's determination by refusal of consent of DA08/1991 (20th October 2008) for a dwelling envelope and therefore an "in principle" dwelling approval on the abovementioned land, as it is our contention that the land constitutes the whole of a 1964 holding.

We request that Council review it's determination of this application under the provisions of Section 82A of the Environmental Planning & Assessment Act, 1979. This proposal was not an integrated development application therefore the ability exists for Council to review the delegated officer's determination by refusal to grant consent.

The development application was lodged on 16th July 2008 and the determination refusing to grant consent issued on 20th October 2008 stated the following reasons for non support of the proposal:

1. *"Clause 15 of Shoalhaven Local Environmental Plan 1985 (SLEP 1985) as the subject site does not meet any of the criteria in 1(a) to (g) nor 1A, in particular, the subject site is not a "1964 holding" as defined by SLEP 1985.*
2. *Further to Section 79C(1)(b) the proposed development has not satisfactorily demonstrated that physical and practical access is available to the subject site.*
3. *Further to Section 79C(1)(e) the proposed development is not in the public interest."*

Submission for Review

Firstly, it is our contention that we have clearly established that the subject land is a separate 1964 holding as defined under the Shoalhaven Local Environmental Plan, 1985, and can not be part of the 1964 holding identified by Council on its Rural Land Holdings maps owned by J W Wilford. This development application has been supported by legal opinion from Mr Peter Moggach from RMB Kearns and Garside where the findings are summarised as follows:

1. The above definition applies to the subject land as the land is zoned both 7(a) and 7(d1).

2. The subject land is a 1964 holding as it is the *"area of a lot, portion or parcel of land in separate ownership"* where it is physically separated by other land owned by the same person on 28th February 1964 by a 30.48m wide public reserve and 30m wide tidal creek.
3. The standard Macquarie Dictionary definitions of adjacent and adjoining imply that the common meaning of these terms is 'contiguous' or 'neighbouring'.
4. The land can not be readily managed or used for agricultural purposes as part of the landowner's other holdings due to its physical separation and the distance required to travel to Lot 107 from Hobbs Lane, and also as access is not available via an all weather pavement within a road reserve.

The subject land is neither continuous nor contiguous with other lands owned by J W Wilford as illustrated on Council's Rural Land holding maps – Lot 1 DP 726011 west of Stony Creek. The subject land is not readily accessible from that property nor does legal and practical access exist between the two lots, other than via a detour of 9km one way.

The two parcels of land owned by J W Wilford are physically separated by Stony Creek and a Crown Land public reserve, in total more than 60m in width, which denies physical and practical access between the two properties.

Secondly, the application clearly demonstrated that legal and coincidental / physical and practical access is available to Lot 107 DP 755967 through construction of an access track within the Crown Road Reserve abutting the land, and connecting with Wilfords Lane to the east. A track exists within this road reserve in part, and has been used to access the property in the past. Council's refusal to grant consent on this point is unreasonable as this type of road reserve is widely used for property access within the Shoalhaven.

Council's refusal to grant consent has not clearly identified why the proposal is considered to be contrary to or "not in the public interest". In that regard, this proposal is not likely to set an undesirable precedent as there are not likely to be many cases demonstrating the same circumstances which are a precondition of precedent. Further, the proposal will have no adverse impact upon the wider health and well being of the City or of residents in close proximity to the subject land. It is also unlikely that the impacts of this development proposal are likely to be so significantly adverse that they will affect the public interest.

"The public interest" in planning terms as it applies to the City of Shoalhaven is considered to be defined through the attainment of the objectives of the Shoalhaven Local Environmental Plan, 1985 and the objects of the Environmental Planning & Assessment Act, 1979. This proposal does not conflict with both the aims and objectives of the LEP or the objects of the Act, and does not therefore conflict with the public interest.

Visual ameliorative measures can be employed to reduce the visual prominence of a dwelling on this site, particularly as there is little shielding vegetation along the creekline and the dwelling is not proposed to be located upon a prominent ridge line where it will be readily viewed from dwelling houses in the locality. Colours of, and materials of construction can be muted tones to blend the dwelling into the landscape, particularly with screen planting to the west of the building envelope.

The dwelling site location is not bush fire prone land nor is there contiguous canopy between mapped bush fire prone land and that site; therefore there will be no adverse public interest implications through the construction of a dwelling house on this site from a bush fire perspective as it will not increase the threat or risk to adjacent dwelling houses.

The proposal does not result in the destruction of an endangered ecological community or threatened species habitat, or Aboriginal or European heritage items that may otherwise be irreplaceable in the City, which may otherwise result in the proposal being against the wider public interest.

A dwelling house on this land will not be out of character with the nature of the surrounding locality which comprises concessional allotments and other larger agricultural and non agricultural properties containing rural dwellings. There is no policy or DCP variation sought which may adversely impact upon the public interest and all current DCPs applicable to the land can be complied within the erection of a dwelling house on the subject land.

Overall, it is our contention that this proposal is reasonable in the circumstances of this case, given its physical separation from other lands in the same ownership; as a result of which this property is a separate 1964 holding and therefore has the lawful ability for the erection of a dwelling house.

Yours faithfully
RYGATE & WEST



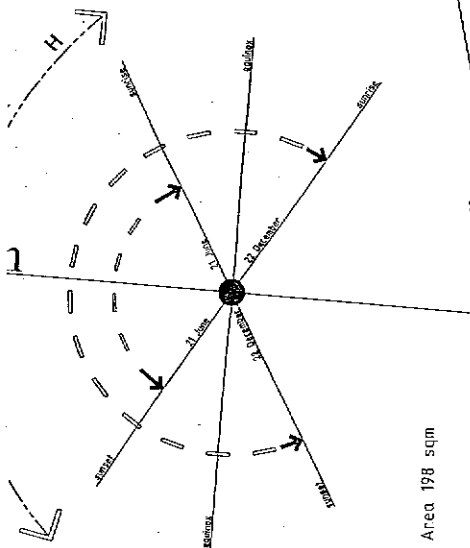
Graham Beasley B.Surv (Hons)
Registered Land Surveyor Under
the Surveying Act, 2002

ATTACHMENT 'A'



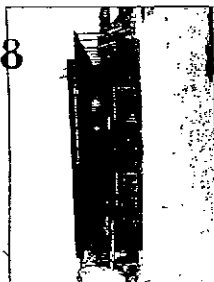


Photograph 1



Photograph 2

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Photograph 3

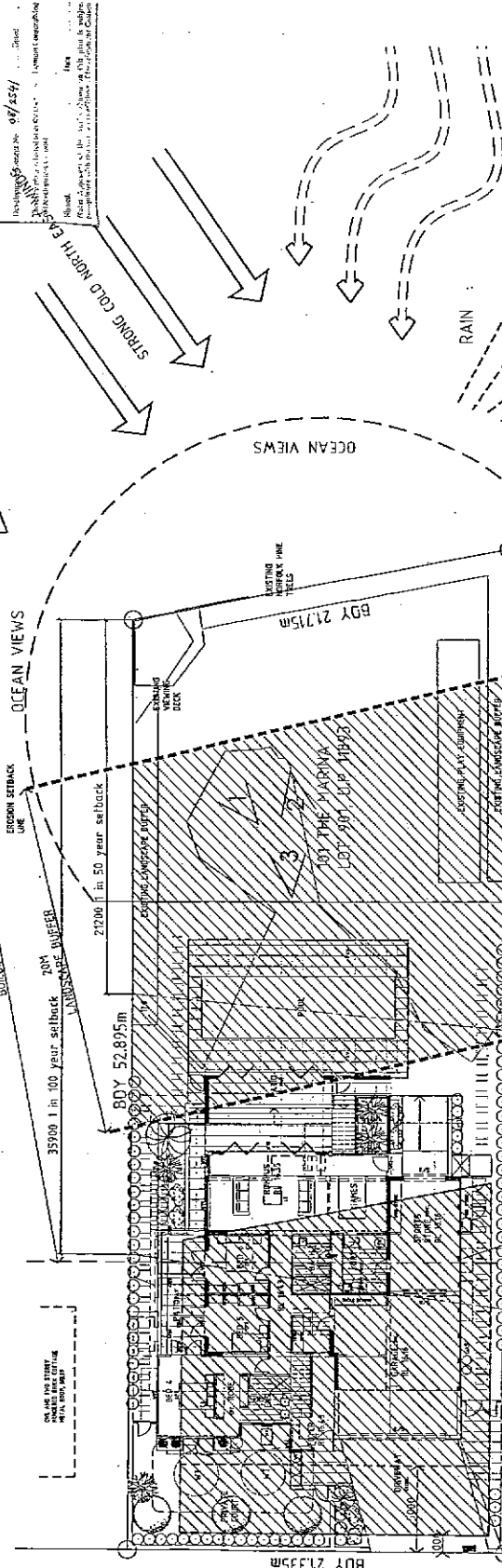


Photograph 4

STRONG HOT NORTH WEST WINDS

101 THE MARINA

STRONG COLD WEST TO SOUTH WEST WINDS



Exist GF Area 198 sqm

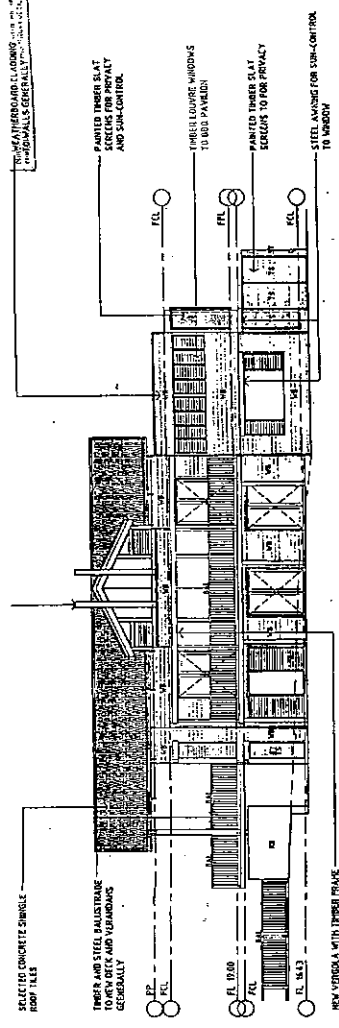
SITE ANALYSIS PLAN

FILE	PROJECT	DATE	AMENDMENT	NO	DATE	AMENDMENT	NO
101 THE MARINA	101 THE MARINA	10/10/2008	1	1	10/10/2008	1	1
101 THE MARINA	101 THE MARINA	10/10/2008	1	1	10/10/2008	1	1
101 THE MARINA	101 THE MARINA	10/10/2008	1	1	10/10/2008	1	1
101 THE MARINA	101 THE MARINA	10/10/2008	1	1	10/10/2008	1	1

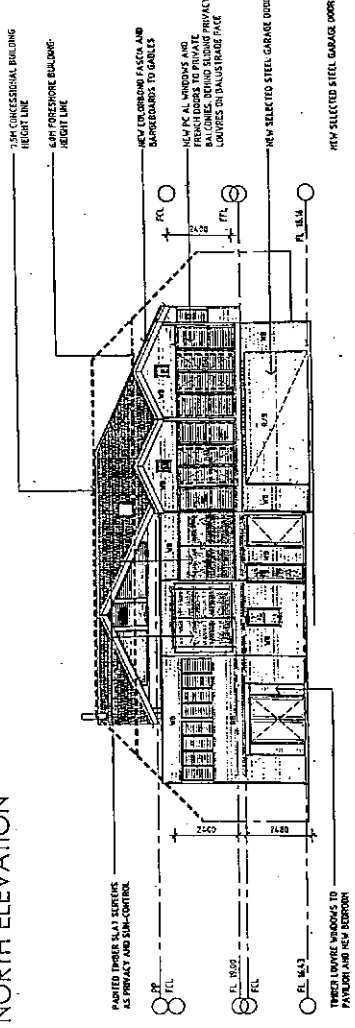
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10/10/2008	1	1	10/10/2008	1	1
10/10/2008	1	1	10/10/2008	1	1
10/10/2008	1	1	10/10/2008	1	1

ARCHITECTURE	INTERIORS	URBAN DESIGN	HERITAGE	SUSTAINABLE
101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA
101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA
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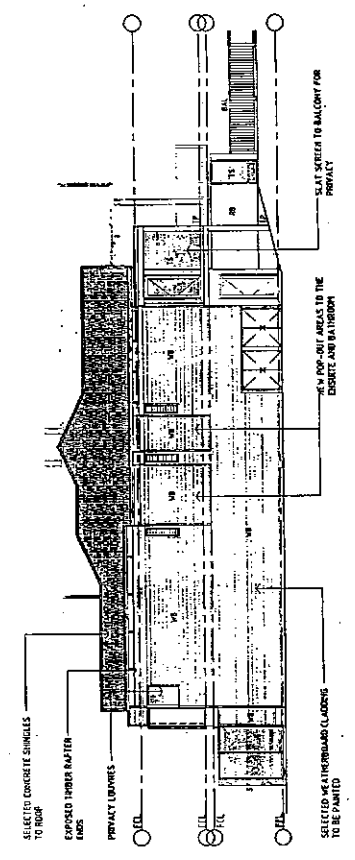
PROJECT PROPOSES A-V-A TO BEACH HOUSE	101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA
101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA
101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA	101 THE MARINA
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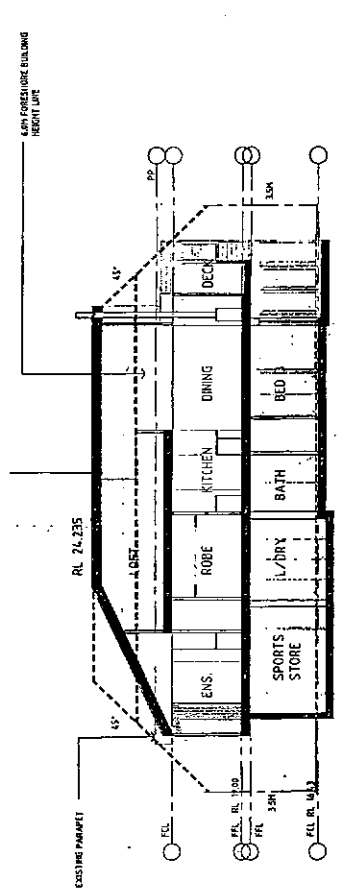
NORTH ELEVATION



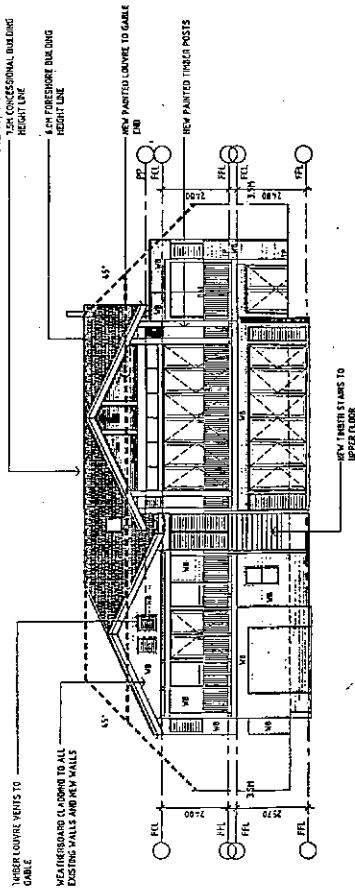
WEST ELEVATION



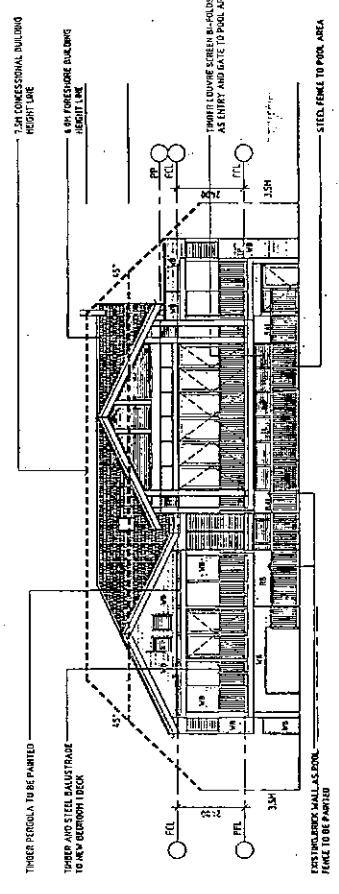
SOUTH ELEVATION



SECTION A-A



EAST ELEVATION - RUMPUS VIEW



EAST ELEVATION - POOL VIEW