INSURANCE COUNCIL OF AUSTRALIA LIMITED

Incorporated in Victoria

House of Representatives

Standing Committee on Environment and Heritage

Inquiry into Catchment Management

Submission

Insurance Council of Australia

30 July, 1999

INTRODUCTION

A particular focus for the insurance industry at the present time is flood risk within catchments.

This submission from the Insurance Council of Australia (ICA) asks the Federal Government to give greater attention to the importance, role and responsibilities of Catchment Management Authorities in Australia.

This is because our nation seems to lack a coherent and structured approach to researching, understanding and recording flood in catchments and consequently lacks flood data that could define a national approach to the management of flood.

In regard to land ownership, there is a clear expectation in the community that consumers have a fundamental right to know whether a piece of land is subject to mine collapse, landslide, earthquake or other natural disasters.

Federal, State and Local Governments clearly accept that flood falls within the definitions of "natural disaster". It follows then that consumers have a right to know the flood status of their property in a form that is easily accessible, universally consistent and transparent.

The reality is a majority of Australian householders would experience difficulty obtaining basic, standard information from any level of government on flood risk to their property.

Only local councils through their planning in collaboration with Federal and State Government and Water Authorities can provide consumers with information on the flood status of their properties.

As the situation exists at present, only Victoria is approaching a benchmark whereby an accurate and uniform mode of reporting the flood status of any property will be integrated into all Council Planning Schemes.

Funding restrictions and different levels of subsidy between states have precluded some governments from undertaking flood studies and publishing the information. This means that flood information is not made accessible to customers in some local government areas who are then unable to make an informed assessment of flood risk.

In Queensland and New South Wales where the greatest exposure to flood risk exists, consumers may find a bewildering variety of methods of reporting flood status, some of which can be unintentionally misleading. The onus therefore needs to be placed upon government and councils to undertake mapping studies and incorporate flood plain information into Council Planning Schemes.

Local governments across Australia continue to approve new urban developments on land which is subject to flood. The problem will continue to grow unless action is taken at a higher level to contain and then reduce the problem.

The ICA is currently undertaking an extensive survey of flood information held by Australia's 704 local governments. The result of this research will not become available until late September 1999.

The ICA seeks approval to table this additional information in support of its submission when the results are finalised. ICA representatives are available to address the Parliamentary Inquiry in person to provide additional comment and information in support of the submission at the Inquiry's convenience.

Flood Insurance

The Insurance Council of Australia submits this document to the Parliamentary Inquiry on Catchment Management as part of a broader dialogue with the Federal Government on the issue of flood insurance.

The principal purpose of this submission is to highlight a significant lack of useful, quality information on catchment management issues across the nation, and to recommend that Catchment Management Authorities be given an effective role in resolving this problem.

The insurance industry contends that lack of information on catchment management is problematic for both government and the private sector as it generally prevents the development of informed and responsible policies, programs, products and services.

This submission follows an extensive eight month research project undertaken by the ICA. Of particular interest to the ICA has been its attempt to identify government databases with simple, standard information on which areas of a catchment will flood in what circumstances.

Our research has found that no such database exists.

Terms of Reference

The ICA has carefully considered the stated terms of reference for the Standing Committee on Environment and Heritage Inquiry into catchment management.

Our submission presents information, facts and ideas that are directly relevant to the Parliamentary Inquiry and its terms of reference.

The submission addresses three specific criteria:

- The role of different levels of government, the private sector and the community in the management of catchment areas;

- Planning, resourcing, implementation, coordination and cooperation in catchment management; and

- Mechanisms for monitoring, evaluating and reporting on catchment management programs.

Insurance Industry Proposal

The ICA submission proposes the following recommendations in relation to the terms of reference of the Standing Committee on Environment and Heritage Inquiry into catchment management:

Criteria: ***The role of different levels of government, the private sector and the community in the management of catchment areas.***

Federal Government

The Commonwealth needs to consider a structural improvement that might divide the nation into catchment management authorities which have the responsibility for water catchment and flood plain management and for either undertaking or collating flood plain studies which are then provided to local government and the insurance industry.

The Commonwealth, through its Departments needs to:

- establish a program that provides incentive to the States to establish Catchment Management Authorities (a CMA Program);
- develop guidelines, application procedures and administrative and financial arrangements for this CMA program;
- enter into Partnership Agreements with the States;
- establish a national benchmark system to encourage good practice in CMAs;
- establish national standards for CMA information, particularly flood data
- establish and support the operation of an education unit that endorses a benchmark system to encourage good practice in CMAs;
- monitor and report on the use of those funds and the results achieved by CMAs; and
- undertake evaluation of the CMA Program in accordance with agreed outcomes and performance criteria.

The Commonwealth needs to specifically investigate the United States Federal Emergency Management Agency (FEMA) model for the purpose of establishing a central agency with the primary role of providing education and advice on flood mapping and mitigation matters to:

- State Departments
- Catchment Management Agencies
- Local Councils

However, it should be noted that while FEMA also administers a Federal Government funded flood insurance scheme the Australian insurance industry does not advocate such a scheme.

State Government

The State, through its nominated lead agency, will need to:

- enter into a Partnership agreement with the Commonwealth
- enter into suitable arrangements, through contract or agreement with local agencies or other bodies to meet criteria of CMA program
- provide funding towards the program;
- oversight and monitor work progress, achievement of milestones and report regularly to Commonwealth;
- submit requests for payment to Commonwealth, administer funding and acquit expenditure; and
- undertake evaluation of the CMA Program in accordance with agreed outcomes and performance criteria.

Catchment Water Authorities (CMAs)

The CMAs, as either single entities or as coalitions, will need to:

- enter into suitable arrangements, through contract or agreement with the State Government regarding expenditure and meeting criteria of the CMA program
- undertake or oversee all technical, environmental, heritage and flood risk assessments according to requirements.
- monitor work progress, achievement of milestones and report regularly to the State and a "FEMA" like body;
- submit requests for payment to the State, administer funding and acquit expenditure; and
- Undertake evaluation of the CMA Program in accordance with agreed outcomes and performance criteria.

Criteria: ***Planning, resourcing, implementation, coordination and cooperation in catchment management.***

The Commonwealth and States will need to provide funding to CMAs, as either single entities or as coalitions, to take a lead role in the research and measurement of flood and an enhanced role in the planning of mitigation.

The Commonwealth will need to establish national standards for quality information, particularly in regard to flood.

The Commonwealth and States will need to provide information and educational support to CMAs, possibly through the establishment of a US "FEMA" style body.

CMAs will make their flood plain information available to Councils, with the purpose of incorporating the information into planning schemes.

The Commonwealth and States will need to guarantee access to flood information for insurers.

The Commonwealth will need to review the US National Flood Insurance Act as a potential model for adaptation to Australia. In particular it should look at the operation of the Natural Disaster Relief Fund.

This fund is available to communities affected by flood. However, relief funds are not available on subsequent occasions unless the relevant local government authority has demonstrated a responsible attitude towards risk reduction.

Criteria: ***Mechanisms for monitoring, evaluating and reporting on catchment management programs.***

The Commonwealth needs to establish a national standard for flood mapping.

The Commonwealth needs to consider addressing natural disasters such as flood from a risk management viewpoint. This would involve identifying and analysing the risk, assessing the management options – including mitigation works and measures and implementing effective solutions.

The Commonwealth needs to consider tying funding for mitigation and other flood and catchment programs to these new national standards for information.

If consumers are to be offered flood insurance there is an obvious need for a uniform method of assessing flood risk.

Local Councils must provide flood risk assessment on their planning schemes.

Assessment should be based on flood plain studies that integrate both historical and predictive data. The risk assessment should comprise a simple scale such as:

- No Risk
- 1:20
- 1:100
- PMF (Probable Maximum Flood)

Flood - A Catchment Management Issue

Flood is a catchment management issue. It is a significant issue because Australia's water catchment areas and floodplains are the commercial, social and ecological arteries of the nation.

Much of the urban and industrial development across inland and coastal Australia is centred on the nation's waterways and their floodplains. Floodplains, by virtue of their fertile soils, water availability and timber resources, were obvious places for towns to develop. Such centres typically originated as centres of agriculture, and at times were the focus of river borne transport. Because of the nature of their origins, many towns and regional centres across the nation are subject to flooding.

Over recent decades, the community has become increasingly aware of the fundamental importance of waterways and their associated wetlands and floodplains in providing habitat to native plants and animals. Flooding also benefits floodplains through increasing soil moisture, recharging groundwater tables and the deposition of fertile silt. The ecological significance of floodplain habitat, much of which has been lost through land clearing operations, drainage and changes to river regimes, cannot be over-emphasised.

In terms of financial cost, the average annual cost of flooding to government in Australia is at least **$400 M per year**[1], much of which occurs in New South Wales and Queensland.

Not only is the average annual national damage figure of $400 M per year a significant sum in its own right, it is a sum that will increase from year to year unless effective floodplain management measures are put in place. These measures are not limited to works to protect existing development but also the implementation of complementary planning schemes to control new development. The formulation of complementary planning schemes needs to be based on the principle of national quality standards for flood information.

In view of the fundamental importance of floodplains to the commercial, social and ecological well being of the nation, there is an obligation on the Federal Government to manage the nation's waterways and floodplains in an informed, responsible and sustainable manner. The challenge of floodplain management is to reduce the current damage bill and to limit the increase in future flood damage, while continuing to manage and, where possible, enhance the social, economic and environmental impacts associated with the human occupation of the floodplain.

Under current Constitutional arrangements, primary responsibility for the management of land and the provision of flood mitigation works and measures rests with the State Government throughout its various agencies and local authorities. However, within this context, catchment management (as organised agencies responsible for the management of specific catchment and river systems) do not exist in all States.

[1] Floodplain Management in Australia, DPIE, 1992

Scope of the Problem

Two critical problems or bottlenecks need to be addressed in the context of a national response to flood and flood mitigation:

- the lack of a consistent national standard for the generation and interpretation of flood maps; and

- the lack of an identified agency in each state that can collect information to a consistent national standard, create flood maps and make that information available to Councils and other agencies to assist them with planning and mitigation.

Many Australian cities and towns have been settled on river and coastal plains in the path of floods of common frequency (more frequent than 1:20). Many flood plains have not been adequately mapped.

It is acknowledged that some parts of a catchment will flood with very little exceptional weather. Most of these areas are already designated as floodways in a catchment and local government planning schemes may exclude development on them. However, we now know that there are significantly large areas within catchments that have been developed that will flood under more extreme events, such as anything above a 1:5 year event.

In attempting to establish an information base of what will flood in what circumstances the insurance industry has uncovered a broad range of attitudes, methodologies and of standards across the nation. In most States there are as many responses to flood as there are local governments. Victoria is the only State that has developed a comprehensive and holistic catchment management approach.

The Federal Department of Primary Industry and Energy (DPIE) estimates that floods cost the Australian economy approximately $400 million per year[2]. This estimate, while uncertain, is generally acknowledged to be the best currently published. State Government data confirms that approximately two thirds of the annual national loss to flooding occurs in NSW and Queensland.

The NSW Department of Land and Water Conservation estimates[3] that the NSW share is between $100–150 million. The Department further admits that *'damage resulting from local overland flooding is underestimated significantly and there is also uncertainty about the way in which the 1992 estimate were derived'*. The real costs of flooding in NSW are probably much higher than the estimates suggest. Similarly, a recent survey of potential flood damage in Queensland in 1998 indicates that the situation in that State may also be significantly underestimated[4].

With respect to these government flood damage estimates, it needs to be identified that these estimates are primarily of cost to Federal, State and Local government and other government agencies. Additional to these estimates is the cost of floods to insurers where cover has been provided.

[2] Floodplain Management in Australia, DPIE, 1992
[3] NSW Flood Plain Management Manual 1999
[4] Urban Flooding in Queensland – A review, D I Smith, 1998.

The cost of major flood events such as the 1998 Katherine flood can be substantial. The ICA estimates that insured losses for flood damage in 1998 exceeded some **$100 million**.

Since 1996, Federal Government support for flood mitigation has increased. This includes revisions to *Natural Disaster Relief Funding* and the introduction of a three year **$20 million** *Regional Flood Mitigation Program*[5], and **$3 million** *Flood Mitigation Mapping Program*[6] in the 1999/2000 Budget.

Australia's three levels of government spend considerable sums of money on building, maintaining and repairing dams, retarding basins, levees and drainage systems. The new Federal Government *Regional Flood Mitigation Program* is a further commitment to flood mitigation programs and works that is intended to be matched with State Government funds. However, with such large areas of the continent vulnerable to flood, and so many local needing assistance with urgent mitigation work, this is a relatively small amount of money and flooding remains a substantial and costly problem.

The close proximity of storms and floods in Townsville, Katherine and Wollongong in 1998 led to heightened community concern about flood. This concern related to the limited or non-availability of flood insurance and a lack of understanding of insurance assessment processes.

Some insurance companies responded by making ex-gratia payments of several million dollars for flood damage.

Since mid 1998, the insurance industry has implemented a series of reviews to better meet the needs of its customers. This has included a detailed investigation of the circumstances under which insurers may be able to offer flood insurance policies to customers.

A recurring issue for insurers has been the consistent lack of accessible and credible information on flood. Local councils continue to approve the development and re-development of properties in floodways. This situation presents an acute problem for the insurance industry, as it is being asked to insure property without access to information.

The insurance industry and the community need access to transparent information on flood risk. A lack of accessible, relevant information for Council planning is acknowledged by other independent sources.

Bewsher Consulting in a 1998 policy document prepared for Liverpool City Council, NSW stated that *"The community also lacks appreciation of the real flood hazard and tend to believe that flood hazard exists only on land below the flood planning level which is the level where Councils place restriction on development"*. Bewsher Consulting observes that while the **FPL** *(Flood Planning Level)* is commonly equal to the 100 year **ARI** *(Average Recurrence Interval),* floods can still occur well above the FPL level.

In NSW, Section 149 Certificates issued by Councils that cite the FPL are often misinterpreted by the community as a statement of whether or not a flood hazard exists on a property. Where a

[5] Federal Department of Transport and Regional Development
[6] Federal Department of Finance and Treasury

Council fails to cite a FPL or make reference to flooding on a Section 149 Certificate the assumption tends to be that there is no flood hazard. This assumption is incorrect as on property located just above the FPL there may indeed be significant hazard on rare occasions.

State Variations

Over the past several months the ICA has conducted a review which has revealed the different processes which have been adopted in each of the eastern states.

Victoria

The Victorian Government has demonstrated commitment to improving flood information and flood mitigation. Since 1995-96, State government departments and authorities have invested substantial funds to upgrade their technology and software and undertake flood studies and mapping to improve flood mitigation initiatives.

By the end of 1999 comprehensive flood information based on historical and predictive data will be available on all areas of Victoria. This flood mapping information will be progressively integrated into local government planning schemes.

The Department of Natural Resources and Environment (DNRE) is the lead policy agency on flood mapping and mitigation and has delegated responsibility for flood plain management to Victoria's eight Catchment Management Authorities and the Melbourne Catchment manager, Melbourne Water.

DNRE coordinates all flood plain mapping activity in rural and regional areas. Melbourne Water has taken full responsibility for flood plain mapping within the greater Melbourne area, which spans 32 Councils.

Melbourne Water has completed some flood mapping of the natural waterways and detailed analysis of the overland flow paths for its entire water catchment region. It has commenced the process of integrating flood mapping information into the planning schemes of its 32 Councils. The task will be completed in late 2001.

The integration of flood information into Council planning schemes will have a major influence on future municipal land development and redevelopment, particularly in metropolitan areas.

DNRE has resourced all CMAs with the technology, software and methodologies required to undertake and complete flood plain mapping and to map overland flow paths. Data transfer between the CMAs and Councils, particularly the recording of all known historic flood levels is a key focus.

DNRE places CMA flood information on detailed maps in the State Geographic Information System (GIS). Maps display information municipality by municipality. DNRE now advocates that all planned redevelopment meet new building regulations and planning provisions. Under the new provisions urban flood ways would be prohibited from further development or redevelopment.

GIS information is integrated into Council planning schemes in the form of a special building overlay (SBO) for overland flow. Property owners can now obtain information on flood risk to their property either from Melbourne Water or from those Councils that have already included flood

information in their planning schemes. SBO information is supplied to customers in the form of a *Property Information Statement* for a fee of no more than $40.

Under new State legislation any proposal to subdivide land must now be automatically referred to Melbourne Water for assessment and approval. This gives Melbourne Water the opportunity to optimize development decisions according to flood risk. Melbourne Water uses a community consultation model to help Councils explain the inclusion of the Overland Flow SBO into municipal planning schemes to their communities.

New South Wales

The Department of Land and Water Conservation (DLWC) has primary responsibility for flood management and mitigation work in New South Wales.

DLWC sponsors and contributes to the production of a wide number of flood studies. It operates a program that can contribute up to 40% to the cost of flood studies undertaken by Councils.

In general, DLWC provides only some of its own research information to Councils. The information is not presented on a municipality by municipality basis, nor is it integrated into Council planning schemes.

DLWC flood data is primarily historically based and sometimes excludes reference to predictive data. Mapping is generally undertaken on a needs basis and no systematic state wide system exists for measuring flood risk assessment.

DWLC Coastal and Flood Services Branch is responsible for the development and management of the NSW Government *Flood Plain Management Manual*. This document supersedes a number of existing mapping and planning processes.

The *Flood Plain Management Manual* is in part designed to maximize state wide compliance with changed criteria for flood mitigation funding under revised conditions for the federal Natural Disaster Relief Program. The draft of the most recent version has recently been released.

Queensland

Flood management and mitigation is highly problematic in Queensland. No government department has primary responsibility for the production of information on flood, flood management or mitigation.

The State's traditional approach to flood damage and damage from storm water has been to apply federal funds under the Natural Disaster Relief Program to make good repairs to infrastructure.

The cost of flood loss in Queensland is variously estimated at between $150-180 million per year. The State's average share of Natural Disaster Relief funding has been around 30%.

As a consequence of this policy approach, flood plain mapping has become the voluntary responsibility of local government and water authorities. The Queensland Bureau of Meteorology works closely with Councils to provide storm warnings, however, while the Bureau holds information on rain data, it has no information on flood history associated with rain data. The Bureau is a strong and influential advocate for Councils to develop good quality evacuation plans.

In 1998 new State legislation, the *Integrated Planning Act* was enacted. The Act requires all Councils to develop an integrated planning policy and review their planning schemes. Similar to New South Wales, the Act is in part designed to maximize state wide compliance with changed criteria for flood mitigation funding under revised conditions for the federal Natural Disaster Relief Program.

The Act will require Councils to engage in community consultation to identify desired changes to local planning schemes. Identifying environmental outcomes is a mandatory requirement of the review, this includes how local communities will manage and mitigate floods.

The nature of the consultative process, the need to respond to new federal mitigation criteria and the voluntary nature of Council commitment to flood mapping is likely to result in Councils establishing different systems of flood measurement.

As the Integrated Planning Act is focused on the broad gamut of planning scheme issues it will not lead to the introduction of a consistent State standard for flood mapping and assessment.

The Queensland Local Government Association maintains that most local governments operate with a low rate base. As a general rule they are unable to finance the cost of flood mapping or mitigation works within their municipalities.

Federal Government

Federal contributions to flood mitigation and flood relief are made under two schemes:

- Federal Water Resources Assistance Program, that provides funds for flood studies and flood mitigation on a 40-40-20 basis.

- Natural Disaster Relief Arrangements, which assists local governments in repairing infrastructure and relieving distress after floods have occurred. From mid 1996 NDRA payments were restricted to instances where local government authorities could demonstrate that they had engaged in flood mitigation activities.

In May 1999 the Federal Government approved a $20 M *Regional Flood Mitigation Program* and a $3 M Flood Mapping program in the 1999/200 Federal Budget. The funding model the Government will apply to specific project proposals under these programs will be to provide 33%. The States and other agencies will be required to fund the remainder. There is a differential allocation to states that recognizes the varying levels of flood risk.

Role of Insurance companies

Following the floods in Katherine and Wollongong in 1998, the Prime Minister and politicians generally have placed substantial pressure on the insurance industry to cover flood damage.

This places the insurance industry in a difficult position. In some localities in Australia flood is inevitable. The task of undertaking flood studies, mapping flood levels, undertaking mitigation and land zoning in areas at risk of flood is all a matter for government.

To meet the community's expectations, insurers will be reliant on information provided by Federal, State and Local government. Insurers will need access to local flood information because insurance is risk rated against specific areas.

Responsible commercial practice requires that insurance premiums be determined on the basis of defined location relative to a hazard such as a flood plain. This means insurers need to be able to assess the level of the flood hazard in any particular neighbourhood. An understanding of the quality of the flood information government, particularly Councils, hold may assist insurers to satisfactorily risk rate a property's exposure to flood.

However, where it is impossible to make an informed assessment of flood risk because of an absence of certified, relevant information, or there is an unacceptable insurance risk, insurers may well refuse to offer insurance.

In collaboration with government, insurance companies need to determine a common industry standard for flood risk assessment that will provide the base level of acceptable insurance risk. The standard might be:

- No Risk
- 1:20
- 1:100
- PMF (Probable Maximum Flood)

As flood plain data has a limited currency there would be a need to be an update information every 15 years where 1-20 mapping has been undertaken.

Where Councils have integrated flood data into their planning schemes insurance companies may provide insurance. Where Councils have not included such information into their planning schemes householders who apply for flood insurance need to be informed that as there is inadequate flood data on their Council's planning scheme, limited or no insurance can be offered as the risk cannot be assessed.

Community and Government Dialogue

The Insurance Council of Australia, on behalf of the insurance industry is ready to play its part in educating the community about flood and will also continue to lobby governments on this issue. The ICA is now a full member of the Mitigation Working Party, established under the auspices of the Federal Government body, Emergency Management Australia. The industry also looks forward to having input into the debate through this body.

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