

PART 3
Chapter Eleven

Information Notes

ELEVEN

11.0 INFORMATION NOTES

Local Government (Ecologically Sustainable Development) Amendment Act 1997.....	159
Existing Bushland Management Programs	161
A Comprehensive Adequate and Representative Reserve System	164
Bush Fire Risk Management Plan	165
Water Sensitive Urban Design	166
Existing Catchment Management Programs.....	167
Water Courses and Aquatic Habitat Management Study.....	171
Warringah's Waste Strategy	172
Council Generated Waste Management Plan.....	173
Cities for Climate Protection Program	174
Warringah's Residential Development Strategy.....	175
SHOROC's Transport Policy and Action Plan	176
Council's Internal Assessment Panel for Development Applications.....	177
Eco-Schools Grants Program.....	178
Living Waters – Living Communities	179
Warringah's Environmental Management System	180
Warringah's Recreation Strategy	181
Safe Warringah Strategy	182
Warringah's Community Consultation Strategy.....	183
The Concept of New Urbanism	184

INFORMATION NOTE A– LOCAL GOVERNMENT (ECOLOGICALLY SUSTAINABLE DEVELOPMENT) AMENDMENT ACT 1997

Following the 1997 amendments to the NSW *Local Government Act 1993*, councils in NSW are now required to integrate **ecologically sustainable development** (ESD) into their activities and decision-making processes. The Act also enhances the requirements for **State of the Environment reporting** by councils.

Under the new legislation:

- Section 7 (Purpose of the Act) is amended to require councils to have regard to the principles of ESD in carrying out their responsibilities;
- Section 8 (Charter of the Act) is amended to require each council 'to properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible in a manner that is consistent with the principles of ESD';
- Section 89 of the Act is amended to require councils to consider the principles of ESD when determining applications for development approval under the *Local Government Act 1993*; and
- councils are required to have regard to the principles of ESD when preparing Council Management Plans (under s403) and Annual Reports (under s428).

The 'principles of ecologically sustainable development' are defined in the Dictionary to the Act as follows:

Ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:

1. *the precautionary principle, namely that if there are threats of serious or irreversible environment damage, lack of full scientific certainty should be used as a reason for postponing measures to prevent environment degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
 - i. careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
 - ii. an assessment of the risk weighted consequences of various options;
2. *inter-generational equity, namely that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;*
3. *conservation of biological diversity and ecological integrity, namely that conservation of biological diversity and ecological integrity should be a fundamental consideration;*
4. *improved valuation, pricing and incentive mechanisms, namely that environmental factors should be included in the valuation of assets and services, such as:*
 - i) polluter pays, that is those who generate pollution and waste should bear the cost of containment, avoidance and abatement;
 - ii) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste;
 - iii) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

INFORMATION NOTE B – EXISTING BUSHLAND MANAGEMENT PROGRAMS

The following information summarises current Council programs that either directly or indirectly improve bushland in Warringah. Council's annual State of the Environment Report provides updates on these programs, lists achievements and results for the preceding twelve months.

Council's bush regeneration work involves the use of professional contractors and volunteers (in a coordinated program of works at priority sites and areas of interest to volunteers).

Bush Regeneration by Contractors

Council employs contract bush regenerators to work on the three items listed below. The Environment and Stormwater Special Rate funds these works. Priorities for these works are determined by Council's Management Strategy for Weed Control and Fire Management Access Zones (Urban Bushland Boundaries) 1996.

Bush Regeneration

The focus of the bush regeneration program is Category 1 Reserves. Category 1 reserves are reserves of national/regional conservation significance in generally good condition and/or those that offer a high diversity.

Urban Bushland Boundary Weed Control

The Environment and Stormwater Special Rate continues to fund work on urban bushland interfaces.

Urban Bushland Boundary Fire Management Access Program

The aim of creating fire management access zones is to allow reasonably easy access for fire crews to fight a fire or conduct hazard reduction burns, without incurring the loss of bushland associated with the construction of fire trails or breaks on steep land.

Friends of the Bush Program

Warringah's Friends of the Bush program commenced in 1991 to support a growing number of community members who were becoming involved in regeneration projects on Council reserves. A full-time Council Officer coordinates the program.

In 1999/00 Friends of the Bush volunteers planted 8,829 tubes of seedlings at a total of 114 sites.

Threatened Species Management

The Threatened Species Conservation Act 1995 requires that all endangered species and communities have Recovery Plans written for them. Recovery Plans are detailed documents that outline what measures will be taken to protect the endangered species and promote its recovery. The Act stipulates that the National Parks and Wildlife Service co-ordinates the preparation of Recovery Plans.

The only Recovery Plan that has been written for threatened plants or animals in Warringah at this stage is for *Grevillea caleyi*. Council has been implementing measures in the *Grevillea caleyi* Recovery Plan, including bush-regeneration, public education and noxious weed control. Fencing was also constructed to control access by horse-riders, illegal firewood collectors and access to public utilities.

Weed Control Program

Apart from the bush regeneration activities outlined above Council continued to undertake private property inspections that:

- target properties around bushland reserves where volunteer groups and contracted bush regeneration companies are working;
- target specific weeds that are of regional significance or are part of catchment management priorities;
- target neighbouring properties around a property that has a noxious weed problem and is complying with the Act;

- Council also conducts inspections on properties that have come to Council's attention via concerned residents.

Council also recently undertook a Nursery Education Initiative aimed at improving industry awareness of noxious weeds and promoting a more responsible attitude to the sale of plants that exhibit 'weedy' characteristics. The nursery industry was targeted because they are in a unique position to influence residents on appropriate plants for their gardens. A long term aim of this program is to reduce the impacts of garden plants escaping into bushland and becoming weeds.

Pest Animal Control Program

The northern Sydney region contains a green web of interconnecting bushland reserves. This area hosts a diverse range of native fauna including threatened species such as the Southern Brown Bandicoot (*Isodon obesculus*) that require special management to ensure their long-term survival. Pest animals are a major threat to the on-going survival of the native fauna of the area, such as the Southern Brown Bandicoot.

Rabbits

Warringah's rabbit control program involves a combination of different techniques applied. These are:

- Rabbit Pindone poison baiting
- Fumigation of warrens
- Destruction of warrens
- Removal of rabbit harbour (piles of logs and vegetation)
- Trapping using cage box traps
- Construction of rabbit proof fences where appropriate.

Foxes

In this region six councils (Hornsby Shire, Ku-ring-gai Municipal, Pittwater, Ryde City, Warringah and Willoughby City Councils) and the National Parks and Wildlife Service have joined together to undertake a regional 1080 fox baiting program within some of the bushland reserves.

Cats

The new NSW law related to companion animals (the *Companion Animals Act 1998*) gives cats specific protection for the first time and also introduces responsibilities for cat owners, similar to those of dog owners. If a cat is causing a nuisance to neighbours, through noise, defecating in a child's sandpit or by attacking animals, the cat's owner must act to control the action causing the nuisance.

Additionally councils can declare "Wildlife Protection Areas" within their local government area. Cats are prohibited from these areas and council officers are authorised to capture and impound cats found in these areas.

The following reserves have been declared a "Wildlife Protection Area" under the Companion Animals Act:

Jamieson Park, Lincoln Reserve, Anzac Avenue Reserve, Dee Why Wetlands, Grace Avenue Reserve, Forestville Park, Dee Why Bicentennial Track, Allenby Park, Towradgi Reserve, Anembo Reserve and Manly Warringah War Memorial Park (Manly Dam).

Bush Fire Risk Management (see also Information Note D)

Proposals for hazard reduction and ecological burns are submitted each year by relevant authorities (eg Council) to the Executive of the Warringah Pittwater Bush Fire Management Committee. Based on these proposals a draft program for hazard reduction and ecological burns is prepared, distributed to Land Management Authorities and a hazard reduction review meeting is held for all key stakeholders to discuss the proposals. The Hazard Reduction Program is then presented to the Warringah Pittwater Bush Fire Management Committee for approval.

During the 1999/2000 financial year, 51 hazard reductions were conducted, comprising 17 broad area hazard reductions totalling approximately 84.5 hectares and 13,835 metres of perimeter. The remaining 34 burns were pile or ecological burns.

Community Lands and Crown Lands Plans of Management Program

Council also has an obligation to prepare plans of management for all the land that it owns or manages on behalf of the community. There are two types of plans that relate to planning for our public open spaces. Community Lands plans are prepared in accordance with the Local Government Act for land owned by Council classified as community land. Crown Lands plans are prepared for Crown Land managed by Council on behalf of the state in accordance with the Crown Lands Act.

Warringah has prepared numerous plans under both these acts. For example plans exist for the Long Reef (Griffith Park), Berry Reserve at Narrabeen and Allenby Park at Allambie Heights, to name just a few.

The plans provide Council and the community with a planning framework to better manage the community's valuable open space resources. The provisions within these planning frameworks seek to improve catchment management through appropriate use and management of open space areas.

For further information on these programs please contact Council's Conservation and Land Management Team on 9942 2472.

INFORMATION NOTE C – A COMPREHENSIVE, ADEQUATE AND REPRESENTATIVE RESERVE SYSTEM

Australia has nationally agreed criteria for the establishment of a 'comprehensive, adequate and representative' reserves system. One criterion is that at least 15 per cent of the pre-1750 extent of each forest ecosystem should be reserved (JANIS 1996). On a bioregional basis, a network of reserves that is comprehensive, adequate and representative is considered necessary to protect the complexity of an area's natural environments in the long term (Thackway and Creswell:1995). The same rationale could be applied at the Local Government Area scale.

Warringah's non-urban areas are largely bushland, some of which contains threatened vegetation species and provides habitat for a diverse fauna population. Approximately 40 per cent of the Warringah Local Government Area can be described as bushland—one of the highest percentages of any local government area in metropolitan Sydney. This comparative abundance of natural bushland and the associated open space is one of the defining characteristics of Warringah. Large tracts of this land lie within the catchments of Narrabeen Lagoon and, to a lesser extent, Middle Harbour and the Hawkesbury Nepean. This bushland plays a vital role in regulating run off and maintaining water quality in those receiving waters.

National Parks and existing Council reserves already protect areas of bushland. Nevertheless, there is a progressive loss and increased fragmentation of the bushland environment both inside and outside of these reserves.

The recently completed Natural Area Survey of Warringah (a comprehensive vegetation survey) will be invaluable in identifying the desired urban bushland network for Warringah. Even so, the identification will be a complex and evolving task.

To allow effective forward planning for the optimal network of bushland reserves in Warringah, it will be necessary

- to analyse the current reserves, including those managed by both Council and other agencies such as NPWS, to determine how well they conserve the bushland areas of Warringah; and
- to identify options for the best locations and the necessary extent of bushland reserves.

With such information in hand, it will then be possible to draw up plans for establishing the 'preferred network' of bushland reserves in Warringah.

Once the desired future reserve network has been identified, Council may need to examine the acquisition of additional lands. We may also have to negotiate with State government agencies to gain the care, control and management of priority areas (for example, Council may want to negotiate with the Department of Land and Water Conservation to have the care, control and management of an area of Crown Land vested in Council) or identify significant areas in maps included in LEP 2000.

For further information on this project please contact Council's
Policy Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE D –BUSH FIRE RISK MANAGEMENT PLAN

The Warringah Pittwater Bush Fire Risk Management Plan (BFRMP) has been prepared to cover the Warringah and Pittwater local government areas and includes both public and private lands. The Warringah Pittwater district covers 24,0303 hectares, half of which is bushland.

The Bush Fire Risk Management Plan has been prepared by the Warringah Pittwater Bush Fire Management Committee, which comprises representatives of NSW National Parks and Wildlife Services, Warringah and Pittwater Councils, fire fighting authorities and the community. The Plan will have a life of five years, although it may be refined within that time frame as necessary.

The Plan is a strategic level document which:

- Identifies the level of bushfire risk across the Warringah and Pittwater areas.
- Identifies strategies which will be implemented to manage the bush fire risks identified, and
- Identifies the land managers responsible for implementing the Plan.

The aim of the BFRMP is to provide for the coordinated prevention, mitigation and management of bush fires for:

- The protection of life, property and the environment within the community, and
- The protection, maintenance and wherever possible the enhancement of the natural and cultural values of the area through the management of appropriate fire regimes.

To give effect to this aim a range of risk management objectives and strategies are described in the Plan. Risk management strategies generally include a combination of individual property protection, boundary assets protection zones, strategic fire management activities and broad ecological and hazard reduction measures. When combined these strategies should provide an appropriate level of asset protection whilst achieving ecological objectives.

For further information or to obtain a copy of the Bush Fire Risk Management Plan please contact the Warringah Pittwater District of the NSW Rural Fire Service on 9450 3000.

INFORMATION NOTE E – WATER SENSITIVE URBAN DESIGN

Water sensitive urban design (WSUD) falls within the broader concept of 'integrated water management'. At its simplest end, it can involve actions such as the inclusion of rainwater tanks in all new developments. At the more complex end it involves considering the water cycle and its management as an integral component of the design phase of a new town, down to a new home (Mouritz, 2000).

Wong & Eadie (2000) state 'The concept is based on formulating structural plans for urban development that incorporate multiple stormwater management objectives and involve a pro-active process which recognises the opportunities for urban design, landscape architecture and stormwater management infrastructure to be intrinsically linked.'

Many of the approaches used in WSUD are not new, rather it is the integrated approach to design that treats water as an asset rather than a nuisance, that is innovative. WSUD by using an integrated approach, seeks to closely match the natural water balance by slowing run-off, allowing more of it to seep into the ground and by using wetlands and other treatments to remove pollutants (Urban Land Corporation (2000).

The benefits of WSUD are many. By utilising water captured locally, it can reduce the need for further expansion to water supply systems. The significant pollution reductions that can be achieved can greatly assist in catchment repair. In addition to the ecological benefits, there can also be economic benefits, as the integrated design approach can reduce the need for costly stormwater infrastructure. In some situations this can make the cost of a WSUD approach less than the traditional methods of designing urban development (Coombes et al, 2000).

It is envisaged that with the adoption of the Environmental Strategy, Warringah will make a commitment to initiating a program that aims to embed the philosophy of WSUD in to Warringah's planning framework. This will involve the development of a policy on WSUD and seek to work with relevant state agencies, academic institutions and specialists to prepare guidelines that enable the use of WSUD in future development and re-development in Warringah.

It is only when the water quality and quantity are effectively managed throughout our catchments, starting at the individual home or business, that sustained improvements to water quality will be achieved.

Coombes, P.J., Kuczera, G., Argue, J.R., & Kalma, J.D. 2000, 'Costing of Water Cycle Infrastructure savings arising from water sensitive urban design source control measures', in *Water Sensitive Urban Design: sustainable drainage systems for urban areas* workshop by Melbourne Water. 30 – 31 August, 2000.

Mouritz, M. 2000, 'Water sensitive urban design – where to now?', in *Water Sensitive Urban Design: sustainable drainage systems for urban areas* workshop by Melbourne Water. 30 – 31 August.

Urban Land Corporation. 2000, 'Water sensitive urban design – Lynbrook Estate', in *Water Sensitive Urban Design: sustainable drainage systems for urban areas*, workshop by Melbourne Water. 30 – 31 August 2000.

Wong, T.H.F & Eadie M.L. 2000, 'Water sensitive urban design – a paradigm shift in urban design', in *Water Sensitive Urban Design: sustainable drainage systems for urban areas* workshop by Melbourne Water. 30 – 31 August 2000.

For further information on this project please contact Council's Policy
Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE F – EXISTING CATCHMENT MANAGEMENT PROGRAMS

The following section summarises current Council programs that either directly or indirectly to improve catchment and hence water cycle management. Council's annual State of the Environment Report provides updates on these programs, list achievements and results for the preceding twelve months.

Companion Animal Program

Council supports a range of activities that are designed to enhance the enjoyment of pet ownership and promote responsible ownership behaviours. This program is overseen by the Companion Animals Advisory Committee. Activities conducted via this program include provision of dog exercise areas, dog poo disposal bins and registration information. This program has also introduced new approaches to manage the environmental impact of dogs and cats. Examples of this include the release of dung beetles to reduce dog poo and the introduction of wildlife protection areas such as at Manly Dam, Jamieson Park, and Dee Why Wildlife Refuge.

Environmental Audit Program

Council has operated an environmental audit program since 1995. The *Protection of the Environment Operations (1997)* came into force in July 1999 and more clearly defined Council's role as the 'appropriate regulatory authority'. This delegates Council the responsibility to conduct environmental inspections of potential polluting activities within the local government area. This mostly involves inspections of local industry to ensure that their day-to-day operations are conducted in a manner that does not detrimentally impact on the environment. The audit program has mainly focused on the way in which businesses manage stormwater on site, but also extends to other potentially environment-damaging activities. Certain activities, however, are still the responsibility of the Environment Protection Authority. These include heavy industries like concrete plants and chemical production. On average Council's program sees 200 premises inspected annually.

Erosion and Sediment Control Program

In response to ongoing community concern of the impact from sediment washing off building and construction sites into Warringah's waterways, Council introduced the Erosion and Sediment Control program in 1998. This program encourages the industry to adopt environmentally sound practices to minimise potential water pollution from building sites. Council adopts a liaison role whereby education material and advice is provided to building sites in the first instance, however, in severe and repeat cases fines are imposed under *Protection of the Environment Operations Act (1997)*.

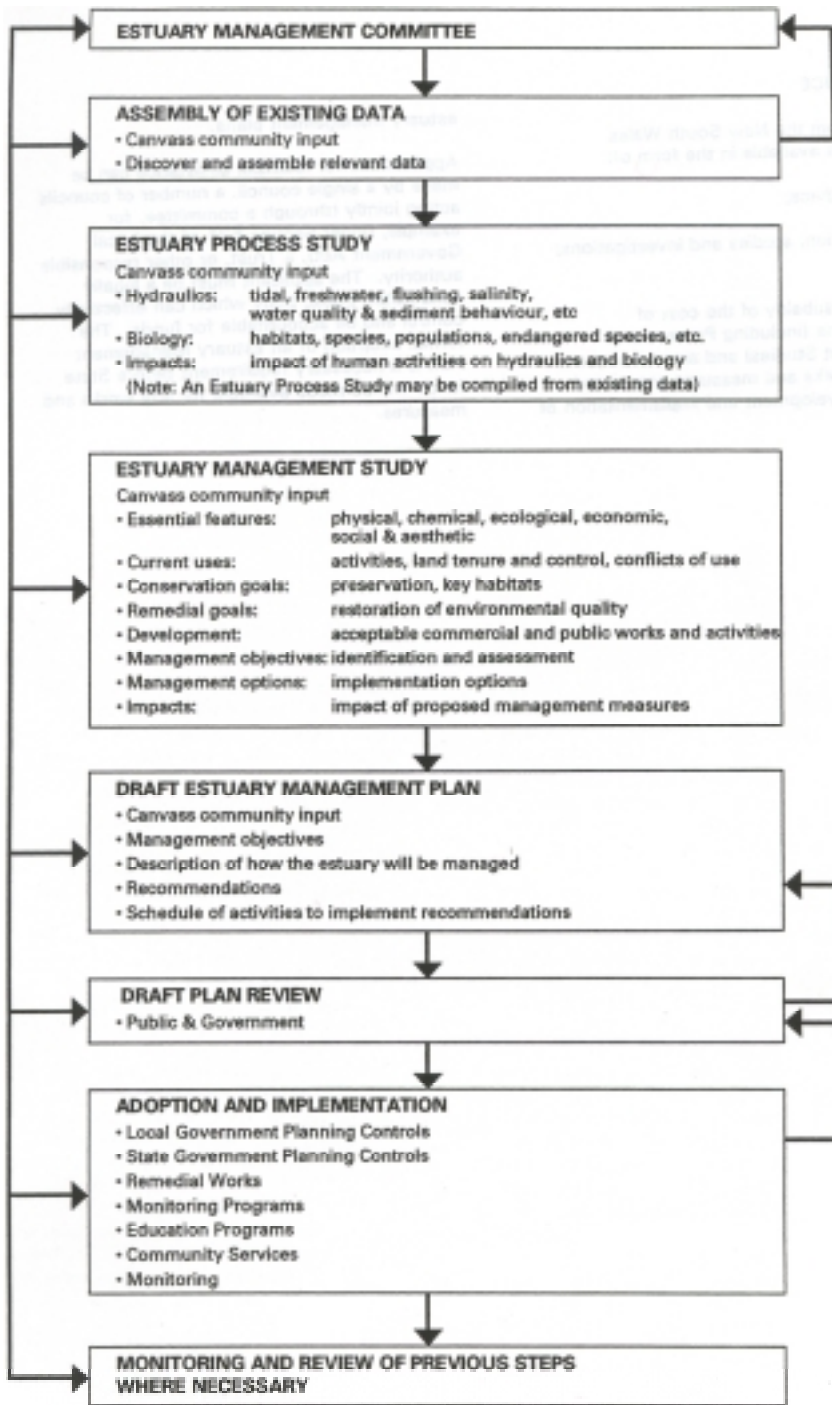
Stormwater Management Program

The stormwater management program in Warringah addresses both stormwater quality and quantity. Stormwater quality control devices (like gross pollutant traps that capture rubbish and sediment) are installed based on priorities outlined in Council's estuary, stormwater and community lands plans of management. These devices are then monitored and cleaned on a regular basis. These devices range in size from small structures such as booms that capture floating rubbish, to large-scale traps like the one on Harbord Road at Curl Curl.

Stormwater quantity relates to the management of run-off to prevent flooding. Council systematically carries out works to reduce nuisance flooding that can from time to time flood homes and businesses as a result of storm events.

Estuary Management Program

For a number of years Warringah Council has been actively involved with managing Narrabeen, Dee Why, Curl Curl and Manly Lagoons. In 1992 the State Government released the Estuary Management Manual. The manual encouraged councils to formulate advisory committees to oversee the preparation of estuary management plans in line with the state Rivers and Estuaries policy. This process is outlined below



representatives and advise Council on matters that affect each lagoon.

There have been large-scale environmental restoration works carried out on both Curl Curl and Manly Lagoons under this program. Sound and comprehensive planning and investigation that the estuary management process encourages drive these works. The rehabilitation projects at Greendale and Brookvale Creeks are great examples of Council's estuary management program in action. Warringah now has adopted Estuary Management Plans for Manly and Curl Curl Lagoons. There are plans in preparation for both Narrabeen and Dee Why Lagoons. The estuarine areas of Cowan Creek and Middle Harbour are not the direct responsibility of Council, but are affected by what occurs in their catchments (which Council can influence).

Floodplain Management Program

Associated with each of Warringah's coastal lagoons is the potential for inundation of the surrounding floodplain. A floodplain is land adjacent to creeks and rivers, lying at the

Warringah has three such committees. The Narrabeen Lagoon Joint Estuary/Floodplain Management Committee is administered in conjunction with Pittwater Council. The Dee Why and Curl Curl Estuary Management Committee and the Manly Lagoon Joint Estuary/Floodplain Management Committee which is administered in conjunction with Manly Council. The Committees concurrently consider floodplain and estuary matters in the interests of improved catchment management. The floodplain program is outlined in the next section. The Committees consist of Councillors, community, staff and state agency

lower reaches of a catchment and subject to inundation from time to time. In a natural setting, heavy rainfall further up the catchment travels down tributaries and can overtop the both the creek banks and the banks of the 'receiving water' (usually a lagoon or river), spilling out over a wide area. This process dumps sediment that accumulates over time. Often, wetlands (either permanent or temporary) develop. Wetlands are typically some of the most biologically diverse habitat within a catchment, being inhabited by plants and animals adapted to life in fluctuating environmental conditions.

Historically, when settlement spreads to new regions, floodplains are often settled first, because they are easiest to access, more fertile, and hence suitable for agricultural production. In Warringah, these factors have resulted in large-scale modification to all of our floodplains. Remnant areas, such as the Warriewood wetlands, are the last examples of what the district's floodplain areas once looked like. Apart from such remnants, we have lost much of the important ecological role that floodplains once played in trapping nutrients and sediment and in providing unique habitat for native flora and fauna.

All of Warringah's four lagoons are surrounded by modified floodplains, though only Narrabeen and Manly Lagoons are generally associated with major flooding. Agricultural production has ceased on Warringah's floodplains, and has been replaced with housing, factories and sporting fields (often created over top of landfill). Nevertheless, the ease of access and views associated with the lagoons continue to attract development.

Modifying a floodplain can lead to many unwanted effects. It can change the amount of flood storage (the physical volume of water stored) and the existing flood regime of creeks. The resulting cumulative impacts can be significant.

Today, conditions are placed on development within floodplains. In essence, any development must now be built at a safer level above the height that floodwater might reach in this less common, but more severe event. An advantage to managing flooding in this manner is that it permits appropriate use of the valuable floodplain land, but mitigates the need for costly, often unsustainable, large-scale engineering solutions such as levees. Floodplain management reduces but can not eliminate the effects of flooding. Major activities that have been implemented under Warringah's floodplain management program in recent years include the removal of beach sand at the entrance to Narrabeen Lagoon, development of the Narrabeen and Manly Lagoons 'Lagoonwatch' real-time flood monitoring computer model and the completion of the Manly Lagoon Floodplain Management Plan.

Coastal Management Program

Warringah is actively involved in managing the natural resources of Warringah's coast. This is achieved through several mechanisms. Council undertakes regular maintenance of the beaches and dunes. This consists of repairs to dune fencing, dune revegetation and beach raking (rubbish removal). Many of Council's officers are authorised by NSW Fisheries to enforce the regulations relating to the marine reserves at Long Reef and Dee Why headlands.

In addition Council operates a Coastal Management Committee. The purpose of the committee is similar to the roles played by the Estuary/Floodplain committees. The committee advises Council on how best to balance development along the coast whilst considering the dynamic and often hazardous nature of the coast. Historically the committee has focused on Collaroy/Narrabeen beach due to the inappropriate development that has occurred there in the past and the problems that this has created.

Community Lands and Crown Lands Plans of Management Program

Council also has an obligation to prepare plans of management for all the land that it owns or manages on behalf of the community. There are two types of plans that relate to planning for our public open spaces. Community Lands plans are prepared in accordance with the Local Government Act for land owned by Council classified as community land. Crown Lands plans are prepared for Crown Land managed by Council on behalf of the state in accordance with the Crown Lands Act.

Warringah has prepared numerous plans under both these acts. For example plans exist for the Long Reef (Griffith Park), Berry Reserve at Narrabeen and Allenby Park at Allambie Heights, to name just a few.

The plans provide Council and the community with a planning framework to better manage the community's valuable open space resources. The provisions within these planning frameworks seek to improve catchment management through appropriate use and management of open space areas.

Water Quality Objectives & Monitoring

The NSW Environmental Protection Authority has established interim water quality objectives for the state's rivers and estuaries after extensive consultation with a broad range of stakeholders. The water quality objectives for the northern beaches lagoons can be viewed at <http://www.epa.nsw.gov.au/ieo/Gosford/index.htm>.

The purpose of these objectives is to provide management agencies and the community with agreed water quality objectives for the various water bodies included. Council can use these objectives to monitor how closely the agreed objectives are to the actual results in the water over the long term. It is important to note that these objectives are not binding and are able to be modified by local communities and councils as knowledge increases.

Council has been monitoring water quality in the four lagoons since 1994. This program provides for a long-term data set that can be used to monitor trends over time.

Public Place Cleaning Program

Council undertakes regular cleaning at numerous public areas throughout Warringah. A work crew is assigned the role of collecting litter in major retail locations such as at Dee Why. This crew also cleans Warringah's myriad of bus shelters. In addition to this Council operates sweeper trucks that target street litter that accumulates in road gutters. Both these activities greatly reduce the amount of litter in our area, which both improves the environment and safety.

For further information on these programs please contact Council's
Catchment Management Team on 9942 2574.

INFORMATION NOTE G – CREEK MANAGEMENT STUDY

Traditionally the focus on waterways management in Warringah has been towards the lower end of the catchments, around our lagoons and beaches. This has been driven by the communities desire to see these valuable assets repaired and returned to states similar to their original. This process, once started is ongoing and constant maintenance is needed to ensure these repaired ecosystems do not deteriorate to their former degraded states. The restoration projects at Curl Curl and Manly Lagoons are the best examples of this.

Nevertheless, as the community has become more aware about concepts such as 'total catchment management' there has been a growing call for more attention to be given to Warringah's myriad of local creeks that all eventually feed into one of the area's waterways.

Hence Council is to commence a strategic program that will define how Council and the community can better care for our creeks. To initiate this program, Council is to conduct a study that will assess the health of Warringah's creeks. This study will look at the physical and biological condition of Warringah's creeks, investigating such things as the extent of erosion, weed infestation and habitat value.

This study will form the basis for managing creeks throughout the area. The study will provide guidance for Council and community groups on how to protect pristine creeks and how to repair degraded sections of creeks. The Study will also provide advice for preserving, repairing and managing creeks that are on private property in line with Council's new LEP.

For more information on the management of Warringah's creeks contact the Catchment Management Team of Council.

For further information on this project please contact Council's
Catchment Management Team on 9942 2574.

INFORMATION NOTE H – WARRINGAH'S WASTE STRATEGY Adopted December 2000

The Warringah Waste Strategy provides a blueprint for the management of waste within Warringah. It integrates aspirations of the people of Warringah for a clean and healthy environment with the legislative requirements of Federal and State Governments and the Northern Sydney Waste Board.

The waste vision is "Warringah will be a zero waste community". In such a community there is no waste, only resources or raw materials for another product which are recycled back into the market place or into the natural environment.

This Strategy is now in draft form, and has just come off public exhibition. It is expected to be presented to Council for adoption in December 2000.

The objectives of the Strategy are to:

- Minimise the environmental impacts of waste.
- Avoid waste and reduce demand for landfill.
- Maximise resource recovery.
- Provide a quality, equitable and cost effective service that meets the community's needs.
- Establish Warringah Council as a community leader in best practice waste minimisation and management.

Actions in the Strategy have been grouped into waste streams and also reflect the level of control Council exercises over the waste stream. The waste streams identified are:

- Domestic
- Council (waste produced as a result of Council's operations)
- Commercial and Industrial
- Building and Demolition
- Waste Disposal Facilities

There are 37 recommended actions in the strategy. Below is a preview of some of the actions due to be commenced within the next two years:

- Continue to audit the domestic waste stream.
- Review Council's provision of waste services to commercial and industrial properties.
- Develop an organisational Waste Minimisation and Management Plan for all Council activities that maximises resource recovery and meets user needs
- Investigate amendments to the Draft Warringah Local Environment Plan 2000 and/or Design Guidelines to require the submission of waste minimisation plans with development applications
- Identify options for future disposal of Council's putrescible waste once Bare Creek landfill closes including alternate local disposal sites.

For further information or to obtain a copy of this Strategy please contact Council's Policy Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE I - COUNCIL GENERATED WASTE – MANAGEMENT PLAN

Council operations cover a diverse number of industries and are geographically spread across Warringah. Historically most of the centres have looked after their own waste and different practice have emerged.

It was realised that a complete audit of practices across the organisation may identify opportunities to minimise waste, reduce costs and increase recovery of recyclable material.

The development of a plan to manage all waste generated by Council operations was included in the overriding Waste Strategy, and in Council's plan of management, warringah PLAN.

This plan is now in draft form, has been reviewed by staff and is expected to be presented to Council in December 2000.

The plan aims to:

- continually reduce the amount of waste produced as a result of Council business, and
- manage the waste that is produced in accordance with the principles of ecologically sustainable development.

Key objectives in setting actions contained within the plan include:

- Separation of all recyclable/reusable material for re-use or recycling,
- Reduction of the overall production of waste from Council business, and
- Closing the loop on recycling by actively encouraging the purchase of goods using recycled material in their production.

It is expected that it will take at least six months to fully implement the plan which contains some key actions which are fundamental to achieving the aims of the plan. A few of the 75 actions are listed here.

- Implement a four bin waste system throughout Council to separate paper products, mixed recyclable containers, food organics and residual garbage.
- Develop an environmental procurement plan to supplement Council's procurement manual.
- Organise all Council run events as "Waste Wise Events".
- Develop a comprehensive Council policy addressing disposal of office/business equipment and furniture.
- Prepare and implement an ongoing education plan (also to be included in all staff induction programs.

For further information on this project please contact Council's
Construction and Maintenance Unit on 9942 2611.

INFORMATION NOTE J – CITIES FOR CLIMATE PROTECTION PROGRAM

Most people have heard about the greenhouse effect or global warming. The weight of scientific opinion suggests that through activities associated with our industrial economy (like driving cars and burning coal for electricity generation), the emissions generated are affecting the world's climate. Greenhouse gases trap heat and are an essential part of the planet's atmosphere, but human activities have started to add more of these gases to the atmosphere, causing climate change. 'Global warming' is often given as the most common example, but other impacts are likely, such as increased storminess and climate variability (eg more floods and droughts). Changing this trend of increased greenhouse gas emissions is therefore important and requires global commitment.

The Cities for Climate Protection™ Program (CCP) is an international program aimed at reducing greenhouse gases at a local level ("think globally, act locally"!). It is administered through the International Council for Local Environmental Initiatives (ICLEI) and is federally funded through the Australian Greenhouse Office (AGO).

Warringah Council has become one of 103 Council's in Australia to show their leadership and commitment to addressing greenhouse issues and supporting energy efficiency measures in its operations by joining the CCP program. The 103 signed Council's account for approximately 50% of the Australian population. There are 5 milestone that have been set out to achieve a reduction in greenhouse gas levels by Council and the community of Warringah. The 5 milestones are:

1. Conducting a greenhouse gas inventory of Council's operations (Council buildings, Council vehicle fleet, streetlights, waste and water and sewage pumping) and the Community sector (residential, commercial, industrial, transport and waste) and forecasting of emissions (to the year 2010) under the "business as usual scenario"- where no greenhouse reduction strategies are put in place
2. Setting a greenhouse reduction goal for the community sector and Council
3. Developing and adopting a greenhouse gas reduction strategy- Local Action Plan
4. Implementing the strategies
5. Monitoring and reporting on CO2 reduction achieved

This program has many advantages including raising awareness about global warming and energy cost savings as a result of energy efficiency measures. Supporting energy efficiency can lead to increased employment in the energy efficiency market (one of the fastest growing ones in Australia!) and it will support other "green" initiatives that Council has undertaken.

For further information on this program please contact Council's Policy Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE K – WARRINGAH’S RESIDENTIAL DEVELOPMENT STRATEGY Adopted 2000

In 1995, Metropolitan Councils were given an opportunity to prepare their own strategies to address increased housing demand in the Sydney region. Whilst DUAP gave no firm targets to work to, as a rough guide, many Councils referred to DUAP’s Population Projections (1995) in preparing their RDS’. The “Residential Strategies” guide by DUAP referred to the population projections booklet which described the challenge for each LGA to provide 520 000 new dwellings to accommodate Sydney’s growth by the year 2021.

The focus of all residential strategies (except some fringe areas that had large volumes of urban releases such as Blacktown Council) was to provide new housing initiatives to replace the loss of dual occupancy development potential when the State Government revoked its own dual occupancy legislation. DUAP was not necessarily concerned with the potential left under the existing planning instruments even if this was substantial.

Ultimately Warringah Council gained an approval of its RDS based on the following initiatives:

1. Dee Why Town Centre Urban Design Study
2. Urban Villages
3. Unique Development Sites
4. Non Urban Lands Study
5. Infill Development

Points 1-4 above were presented as new housing initiatives that represented increased housing numbers, choice and variety. The Minister wrote to Council in September 1998 advising that Warringah’s RDS had been approved, but requiring progress reports only on Dee Why and Urban Villages.

More recently, in response to the negative public response to the Urban Villages concept, Council has pursued a revised Residential Development Strategy. This captures the intent of the previously approved RDS but without the reference to Urban Villages as a short term initiative. The dwelling capacity that the Urban Villages initiative would have provided for is compensated by various factors. These are; the presentation of a more detailed account of the existing and higher than previously assessed residential capacity remaining in Warringah as well one-off spot rezonings in Perentie and Dawes Roads (Belrose) and the Hayman Ellis site in Queenscliff.

The thrust of the RDS is to provide for new residential development that can be accommodated by existing infrastructure and services as well as maintaining the desired future character of given areas.

For further information or to obtain a copy on this Strategy please contact Council’s Strategic Land Use Planning Unit on 9942 2341.

INFORMATION NOTE L – SHOROC'S TRANSPORT ACTION PLAN (ADOPTED 28 JULY 2000)

AIM	DATE		PERFORMANCE INDICATORS
1. Increased use of public transport in region	1. Jun 2001		1. 7% increase public transport use
2. Long term transport plan agreed to	2. Jun 2001		2. A long term plan in place
Action	Date	Strategies	Performance Indicators
Promotion of existing Park & Ride sites	Ongoing		Increased usage of existing Park & Ride sites
Development of more Park & Ride sites eg Warriewood and Lakeside	Jun 2001	B1	Two new sites incorporated into the P&R service Official signing of MOU
Signing Memorandum of Understanding with Sydney Buses and identifying strategies to work on jointly	Aug 2000		Two new strategies identified and action plans agreed to Workshops completed
Review of Transport Policy – seek long term transport solution	May 2001	B3, B4	Plan endorsed by member Councils Forum completed
A Transport Forum to be held for Councillors, Federal and State MPs	Jun 2001		Both bus bays completed
Implementation of bus bays at Kitchener Park and south bound opposite Warringah Mall	Feb 2001		Successful delegation with Minister – more funding allocated to the region
Lobby/seek deputation with Minister for Transport to fund more bus related strategies	Jul 2001		Recommendations for Transport Group implemented
Review Transport Group	Jun 2001		Warringah Rd study completed by RTA – recommendations presented to member Councils
Lobby Government to reduce traffic congestion of Warringah Rd in peak hours	Sep 2000		After hours transport improved, audit completed and priorities set
Develop joint strategy to address lack of after hours transport issues	Dec 2000		Good media coverage
Promote walking/cycling for short trips across the region			
Audit of bus stops/bays in the region for accessibility	Nov 2000		
Coordinate media on successful strategies	Ongoing		
For further information on this Action Plan please contact Council's Strategic Land Use Planning Unit on 9942 2341.			

INFORMATION NOTE M – COUNCIL’S INTERNAL ASSESSMENT PANEL FOR DEVELOPMENT APPLICATIONS

Action 49 in the Planning & Development Chapter proposes the introduction of a multi-disciplinary Internal Assessment Panel (IAP) into the Development Application (D/A) process. The purpose of the IAP is to:

1. Ensure all relevant matters are considered in the D/A process,
2. Utilise available specialist expertise within the organisation,
3. Improve the integration of D/A advice,
4. Give concurrence or “sign-off” on relevant matters,
5. Offer pre-D/A advice, and
6. reduce potential legal costs.

Ultimately the objective of the IAP is to improve the quality of development outcomes.

In establishing the IAP Council will carefully consider under what circumstances the IAP will be involved in the D/A process particularly as Council has an obligation to assess development application in a timely manner.

It is likely that the IAP will consist of members with specialist knowledge in areas such as:

- bushland conservation
- water management
- strategic land use planning
- asset management
- community services & safety
- access and movement (including transport)

This list is not exhaustive and it envisaged that external advice may be required from affiliated interest groups (eg access committee) from time to time.

For further information on this Proposal please contact Council's Strategic Land Use Planning Unit on 9942 2341.

INFORMATION NOTE N – ECO SCHOOLS GRANTS PROGRAM

Established in 1998, this innovative grants program for schools is the first of its kind in NSW. Schools apply for grants at the beginning of each year and council staff, community groups and local service providers assist schools with program development and support throughout the year.

Funding comes from Council's Environmental and Stormwater Special Rate which goes to successful schools to assist in the development of environmental education projects across the whole school. Last year Council provided Warringah's schools with \$ 15,000 worth of funds.

Ten schools from 55 in Warringah, were successful in receiving grants this year which totalled \$ 18,463.00.

Recently Forestville Primary School did some drain stencilling in the playgrounds with the help of staff from Warringah Council and OzGREEN. This activity was part of the school's Stormwater Program, for which the school was successful in obtaining a grant from Council's '2000 Eco Schools Program'.

The Forestville Primary students stencilled messages such as " Our beach starts here" around the school. The aim of the stormwater program, is to let students, teachers and parents know hat the outside stormwater drains lead to creeks, the harbour or the ocean.

For further information on this Program please contact Council's
Environmental Education Team on 9942 2518.

INFORMATION NOTE O – LIVING WATERS- LIVING COMMUNITIES

Living Waters – Living Communities is an environmental initiative of Warringah Council and Oz GREEN, assisted by the NSW Government through its Stormwater Trust. The project aims to build a more ecologically and socially sustainable community through the creation and on-going support of resident based “eco-teams”.

People making positive contributions to the health of our planet.

The prime focus of the project is to involve local people in working together to prevent stormwater pollution. Our beautiful local environment - our beaches, bushland and lagoons – is threatened by the impact of our way of life. Living Waters – Living Communities will bring together people who want to ensure that the health and beauty of Warringah is protected now and for future generations.

By building a strong sense of a shared community amongst project participants, people will help each other to bring about practical changes in their lifestyles. They will develop household environmental action plans that will help to save natural resources and dollars.

“Eco-teams” will meet regularly to discuss, challenge and support each other to change their way of living. The teams will be drawn from the local community – people in a neighbourhood, church, sporting or other community group. At each meeting the group will look at a different environmental issue and plan how they can change their way of living – making a positive contribution to nature and the future.

Living Waters – Living Communities - helping to improve the health of our living waters and helping to build a living, ecologically sustainable community – locally and globally.

For further information on this Program please contact Council's
Environmental Education Team on 9942 2518.

INFORMATION NOTE P – WARRINGAH'S ENVIRONMENTAL MANAGEMENT SYSTEM

Many issues play a critical and fundamental role in the ability of local government bodies to contribute effectively to the environmental and social health of their communities. These issues include the nature of the corporate culture and the effectiveness of the reporting and communication lines. Above all, perhaps, strong leadership depends essentially on good planning.

In reviewing the contribution of any council to environmental and social issues, it's necessary to examine critically the structure and functioning of the organisation. In terms of government, councils have the unique position of being able to directly influence communities by providing leadership on issues, undertaking demonstration projects and setting an example by generally 'putting their own house in order' before going out to the community. A council that has put its own house in order gains integrity and credibility: both are essential before it can set out to increase awareness and change the attitudes and behaviours of its community.

An Environmental Management System is a tool to ensure that Council undertakes its own business in a way that minimises environmental impacts – a tool that ensures Council has its own house in order. There are many potential benefits

of preparing and implementing an Environmental Management System, including:

- Providing a vehicle for integrating the diverse range of functions managed by Council, with a focus on environmental performance.
- Allowing for continual improvement. An EMS can be readily linked to other management systems such as for human resources and asset management.
- Improve relations with the community and raise Council's profile as an environmental manager.
- Offering a method for monitoring and recognising environmental achievements.
- Cost savings may be made in terms of waste and energy costs.
- Reduce Council's environmental impact.
- Reduce corporate and individual liabilities.
- Provide a means for Council to demonstrate it has been duly diligent regarding environmental obligations.

The preparation of an Environmental Management System for Warringah Council is scheduled for 2001.

For further information on this project please contact Council's
Policy Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE Q – WARRINGAH'S RECREATION STRATEGY

Adopted June 1999

The Recreation Strategy Plan has been developed to provide a strategic direction for the future provision and management of recreation facilities and services within Warringah. In developing the strategy a Recreation Needs Assessment was undertaken by UTS in 1998. The key findings and issues identified through the research included the following:

- The community is relatively satisfied with the level of facility provision, with the exception of youth facilities and the need for more unstructured non-sporting facilities such as walking tracks and parks.
- There is an increased need for community facilities and recreational areas to be accessible.
- There needs to be an emphasis on upgrading facilities and improving management of these resources.
- There is a need to develop stronger relationships with the community and other relevant bodies.
- Recreation programs and services should continue to be managed and facilitated by Council, however they should be of a high standard and be designed to meet the changing community demographics and needs.
- The natural environment is highly valued by the community and Council. It provides relief from the urban environment, supports a diversity of flora and fauna, and broadens the opportunities for recreation.
- A diverse range of recreational opportunities is required to support Warringah's mix of ages, cultural backgrounds, education and family types.

Such information and findings assisted Council in developing a recreation vision for the future and a set of objectives and guiding principles, which Council can use as a guide for any work under the scope of recreation provision. Such direction has also enabled the development of an action plan, which lists specific tasks that aim to achieve the objectives and therefore meet the needs of the community.

Warringah's recreation vision

It is the vision of Council and its community that: Warringah Council will enhance the recreational opportunities for the community through the provision and facilitation of a diverse range of accessible, well managed and good quality recreation services and facilities, which complement the natural environment.

Objectives

The objectives of the strategy are based on the following

- A. Enhancing the Environment
- B. Providing Opportunities
- C. Achieving Quality and Good Management
- D. Establishing Partnerships
- E. Encouraging Diversity

Actions

All actions have been listed as being high, medium or low priority in regards to when they should be undertaken by Council as well as being grouped in one of the following areas:

- Parks and Reserves
- Beaches, Coastlines and Waterways
- Leisure and Community facilities
- Programs and Services

For more information or to obtain a copy of this document please contact Council's Policy, Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE R – SAFE WARRINGAH STRATEGY Adopted 1997

Purpose

The Safe Warringah Strategic Plan aims to provide Warringah Council with a framework for establishing community-based injury prevention program in Warringah. The plan identifies six priority areas for injury prevention in Warringah including:

- Water safety
- Personal safety
- Falls prevention
- Road safety
- Sports safety
- Fire safety

Goals

The two primary goals for the Safe Warringah project are as follows:

1. To reduce the incidence of injury in Warringah using a World Health Organisation Safe Communities Model.
2. For the Warringah Local Government Areas to be accredited as a Safe Community by the World Health Organisation.

Implementation

Council's Safety Team is coordinating the implementation of the Safe Warringah project across Council.

Accreditation

Council received accreditation as a Safe Community from the World Health Organisation along with Pittwater, Manly and Mosman Councils on 23rd March 1999.

For more information or to obtain a copy of the Strategy please contact
Council's Safety Team on 9942 2653.

INFORMATION NOTE S – WARRINGAH’S COMMUNITY CONSULTATION STRATEGY

Council is currently developing a Community Consultation Framework to ensure that the people of Warringah are consulted appropriately about issues, plans or strategies that may directly or indirectly affect them. The components of the Consultation Framework are outlined below:

Community Consultation Policy (Adopted by Council, August 2000)

The Community Consultation Policy sets the framework for all consultation undertaken by Council. It encompasses a series of key principles that underpin Council’s approach to community consultation.

Community Consultation Strategy (In draft)

The Community Consultation Strategy includes a detailed action plan to improve Council’s approach to community consultation. The strategy focuses on improved internal systems and processes as well as encouraging a more innovative approach when consulting with the community.

Community Consultation Matrix (Adopted by Council, August 2000)

The Community Consultation Matrix aims to provide staff with a guide on **when** and **how** they should consult with the community for different situations.

It is recognised that there is diversity in the activities and projects across Council, and the type of consultation undertaken should vary accordingly. As such a flexible approach has been adopted in the design of the Matrix, enabling staff to determine the potential impact of a situation or issue, and therefore the appropriate level of community participation.

Community Consultation Toolkit (In progress)

The Community Consultation Toolkit is a resource for staff undertaking consultation processes. The toolkit provides guidance on the steps involved in a number of key community consultation methods. approach to consultation

Key objectives

- To ensure the Warringah community is well informed and involved with issues, strategies or plans that may directly or indirectly affect them.
- To ensure the people of Warringah have the opportunity for genuine involvement in Council’s decision-making and policy development.
- To seek the views of a wide cross-section of the community, selecting consultation methods that are flexible, inclusive and appropriate to those being consulted.
- To provide members of the community with the opportunity to hear each other’s opinions and recommend appropriate solutions to community issues.
- To ensure all community consultations are accessible.
- To ensure Council is meeting its legislative requirements regarding community consultation in all areas of its service delivery.
- To provide staff with the support and training necessary to conduct effective community consultation processes.
- To provide consultation participants with adequate feedback following the completion of the consultation process.
- To improve Council’s internal systems and procedures to ensure a coordinated and comprehensive

For more information about this project please contact Council’s Policy,
Planning and Commissioning Unit on 9942 2341.

INFORMATION NOTE T – THE CONCEPT OF NEW URBANISM

Planning and design documents can address a number of social planning issues such as quality of life and access to and equity of community services. The practice of incorporating these social principles and environmental issues into planning and design work has been termed ‘new urbanism’.

The aims of new urbanism are to provide a greater emphasis on social planning issues (including access to housing, employment, transport, and social and cultural services), while offering both environmental benefits (such as reduced travel demand and improved air quality) and a greater sense of identity within neighbourhood centres.

When the principles of ‘new urbanism’ are applied to new developments, councils should be able to influence a range of social planning and environmental issues in their areas. In this way they can:

- contribute to community and social equity;
- improve access for all people, including those who are socially, culturally, physically or economically disadvantaged;
- help to build a sense of place;
- contribute to a well defined public area with clear focal points and edges;
- create or contribute to high quality public spaces (parks, squares, pedestrian malls, bushland and rural remnants that define urban edges);
- provide buildings and places that are scaled for the pedestrian;
- help to accommodate public transport, walking and cycling as alternatives to the car, as well as accommodating the need to move goods around the area;
- acknowledge that streets are the primary public places for access and exchanges between people and therefore should be made safe, friendly, attractive and efficient;
- create or contribute to a highly inter-connected street system offering improved pedestrian, bicycle and traffic efficiency;
- help neighbourhoods to become mixed-use centres or ‘urban villages’ wherever appropriate and
- create shared areas such as community gardens;
- use architecture that reflects and supports local culture, heritage and identity, and responds to local climatic conditions;
- recognise and capitalise on the economic shifts (such as changes to work practices) that accompany the evolution of information-based economies and the decline of the industrial age;
- protect and preserve ecosystems by minimising or eliminating air, soil and water borne pollutants; and
- provide green corridors where possible.

For more information about this concept please contact Council’s Policy, Planning and Commissioning or Strategic Land Use Planning Unit on 9942 2341.

Chapter Twelve

Appendices

Appendix 1 - Community groups/members involved in the process

A. Those who wrote a submission outlining issues for inclusion in the Strategy

Title	First Name	Surname	Position	Organisation
		Director		Copeland Consultants
Mr/s	C & C	Rodriguez		
Mrs	Lee	McKee	Member	Curl Curl Lagoon Friends
M/s	Sky	Addison	ESD Planner	Manly Council
Mr	David	Barr	MP	Member for Manly
Mr/s	J	Everett	Property Services Manager	Scouts Australia
Mr	Gus	Burnett		Warringah Council
Mr	Gavin	Anderson	Director	Energy Conservation Consultants
Mr	John	Mutton		John Mutton Architects
Mr	John	Richards		
Mr	R K	Whiteley		
Mr	Ian	Ponton		
Mr/s	L	Thornton		
Mr/s	Noelene	Maraun		
Mr/s	J	O'Shea		
M/s	Rosemary	Loughmame		
Mr & Mrs	G	Gosbel		
Mr	Malcolm	Fisher		
Mrs	M	King		
Mr & Mrs	Bruce & Vicki	Cleary		
Mrs	Margaret	Bradford		
M/s	N S	James		
Cr	Kevin	Smith		Warringah Council
Mr/s	M	Mannington		
Mr	Frank	Wynen	Manager Distribution & Production	Hanimex
Mr/s	A	Lakeman		
Mr/s	D	Radford		
M/s	Rosemary	Brenney		
Mr	Peter	Morrow		
Mr	L J	Dunn		
M/s	Margaret	Miller		
M/s	Thelma	Hobday	Exec Member	Curl Curl Lagoon Friends
Mr	Colin	Huntingdon	Chair	Sydney Northern Beaches Catchment Mgt Cttee
Mr	Peter	Lynch	Convenor	Warringah Golf Club - Creek Care
Mr/s	C	Mooney		
M/s	Michelle	Johnston		
Mr/s	Chris	Lengel		

Title	First Name	Surname	Position	Organisation
Mr	Tim	Baker		
M/s	Denise	Paine		Red Hill Preservation Society
Mr	Frank	Gleason		
M/s	Valerie	Hutt		
M/s	Janine	Percy	Local Government & Catchment Management Co-ordinator	Hawkesbury Nepean Catchment Management Trust
Mr	Harry	Eliffe		
Mr	Max	Miller		
M/s	Samantha	Olson	Senior Ranger Pest Species	NPWS
M/s	Robyn	Lyall		
Mr	John	Hewitt	Associate	Transport & Traffic Planning Associates
M/s	Jenny	James	Hon Secretary/Public Officer	Sydney Metropolitan Wildlife Services Inc
Mr	Mark	Bateman	Prinicpal	Our Lady of Good Counsel Catholic Church
Mr & Mrs	R W & L F	Huntsman		
Mr	A C	Deenick	Prinicpal	Covenant Christian School
Mr/s	T D	Hausler		
M/s	Kay	Ashton		
Mr/s	D	Luff		
Mr	Kelvin	Gemen		
Mr	Jeff	Bembeck		
M/s	Shirley	Chory	Convenor	Davidson Area Bush Regeneration Group
M/s	Linda	Benwell	Marine Studies Co-ordinator	Swansea High School
M/s	Lorna	Plate	Secretary	Curl Curl Lagoon Friends
Mr	Greg	Brady	Environmental Review Co-ordinator	Dep Land and Water Conservation
Mr	David	Plomley		
Mr	Neil	Scott	Contracts Manager	Total Earth Care
Mr	Jonathon	Pugh	Science Teacher	Oxford Falls Grammar School
Mr	Laurie	Hutton	Geography Co-ordinator, SRC Advisor	Manly High School
Mr	T A	Allen	Member	Save Manly Dam Catchmetn Committee
Mr/s	A	Howard		
Mr	Grant	Cambouris		
M/s	Kerrie	Allen		
Mr	Phil	Redan		
Mr/s	G	Howells		
Mr	Frank	Minnici	President	Harbord Community Alliance

Title	First Name	Surname	Position	Organisation
Mr	Laurie	McGinness	Teacher	Killarney Heights High School
Mr	Cameron	Glover		
Mr	George	Drew	Organiser	Thursday Gardeners
Mr	Graham	Dawson		
Mrs	P	Lanser		
Mr	Alan	Newton		Curl Curl Lagoon Friends
M/s	Sue	Anderson	Co-ordinator - Landford Ave Reserve	Warringah's Friends of the Bush
Mr	Graham	Macey		
M/s	Christine	Bridle		
Mr/s	M	Newlinds	Hon Secretary	Duffys Forest Residents Association
M/s	Helen	Douglas		
M/s	Helena	Basden		
M/s	Anne	Egan		Saving Middle Harbour Bush Regeneration (Garrigal National Park)
M/s	Denise	Paine	Executive Teacher	Cromer Public School
Mr/s	R A	Brookes	Hon Secretary	Upper Middle Harbour Conservation Society
Mr	Keith	Baker		
Mrs	Sally	Buckingham	Secretary	Frenchs Forest Garden Club
Mr	Stephen	Sharpe		
M/s	Noelene	Hutchinson		
Mr	John	Baird	Local Government Advocate for Bicycle Facilities	Northern Beaches Bikers
Mr	Warren	Squires		
Mrs	I	Thomas		
Mr/s	D & O	Dewell		
M/s	Kay	Clark		
Mr	Leonard	Bowles		
Mr/s	Kim	Griffiths		
Mr	John	Posener		
Mr	Keith	Pearse	Voluntary Environmental Officer	Wakerhurst Golf Club
Mr	Frank	Romeo		Perfection Plant Hire
Mrs	Judith	Bennett		
M/s	Clare	Brown		
M/s	Roberta	Patterson		
M/s	Marina	Grassekcer	Managing Director	Harvest Seeds & Native Plants
Mr	Roy	Cox	Executive Committee	Curl Curl Lagoon Friends
Mr/s	L	Staniforth		
Mr	Ian	Armstrong		
Mr	Matt	Wierzbicki		

Title	First Name	Surname	Position	Organisation
Mrs	C	Barnett		
Mrs	Leonie	Wilson		
Mr	Geoff	Emanuel		
Mr	John	Gunter		
Mr	M	Deuchars		
Mr	Michael	Hunter		
Mrs	Garrie	Wells		
M/s	Kate	Herbert		
Mr/s	G	Wait		
M/s	Gladys	Lawrence		
Mr/s	A & J	Morley		
M/s	Margaret	White	President	Zonta Club of Warringah
M/s	Marie	Sparks		
Mr	Peter	Hill		
Mrs	Patricia	Dowling		
Mr	Nick	Bartho		
M/s	Maggie	Verco		
Mr	Tony	Smith-White	Principal	Actionious Environmental Consultants
M/s	Rosemary	McGregor		
Mr	Raymond	Scotney		
Mrs	G	Barnes		
M/s	Judy	Boyden	Project Officer	Friends of Dee Why Lagoon
Mr	Danick	Buskerolen		
M/s	Helen	Ford		
M/s	Mary	Armstrong	President	Belrose Rural Community Association
Mrs	Deidre	Kidd		
Mr	Robert	Godfrey		
M/s	K	Abrahams		
Mr	Tom	Krause		
Mr	J	Waterhouse		
M/s	Lynne	McNairn	Secretary	Australian Plants Society - Warringah Group
Mr & Mrs	RJ & CJ	Patton		
Mr/s	B	Currie		
Mr	Tim	Fitzroy	Health & Building Section	Ballina Council
Mr	S D	Bealy		
M/s	Sue	Anderson		
M/s	Anne	Sharp	Secretary	Save Manly Dam Catchmetn Committee
		The Occupier		
Mr/s	B	Deacon		
Mr/s	M	Smits		
Mr	John	Bell		
M/s	Margaret	Stephens		
M/s	Pam	Phelan		

Title	First Name	Surname	Position	Organisation
M/s	Barbara	Williamson		
M/s	Sara	Kierney		
M/s	Betty	Ratcliffe	Vice President	Brookvale Valley Community Group
M/s	Kerry	Kingston		
M/s	Vivienne	Fraser		Maroondah Council
Dr	Graham	Pyke	Principal Research Scientist	Australian Museum
Mr/s	Pic	Andrews		
Mr	David	Rostron		
Mr	Peter	Jensen	Project Manager - Buschcare Support	Greening Australia (NSW)
Mr/s	S. M.	Slater		
Mr	Raymond	Kirby		
Mr	Andrew	Hunt		
Mr	Kelvin	Crement		
Mr	John		Greenlink	
Mr	Greg	Rogen		
Mr	Jason	Purser		
	C	Russell		
	L	Rutherford		
	G	Villianos		
	F	Moss		
M/s	Jean	Austin		
M/s	Dorothy	Juknaitis		
	Robin	Plumb		
Mr	Bill	Conroy		
M/s	Joanne	Tulau		Coastal Env Centre

B. Those who wrote a submission commenting on the Discussion Papers

Title	FirstName	LastName	Position	Organisation
Mr	Malcolm	Fisher		
Mrs	Ann	Sharp		
Mrs	Mary	Newlinds	Hon Secretary	Duffy's Forest Progress Association
Mr	Ian	Armstrong		
Mrs	Mary	Armstrong	President	Belrose Rural Community Association Inc
Mrs	Conny	Harris		Belrose Rural Community Association Inc
Mr	Scott	Daines		Forest Activist Network
M/s	Leonie	Huntsman		
M/s	Janine	Percy		Hawkesbury Nepean Catchment Management Trust

Title	FirstName	LastName	Position	Organisation
Mrs	Lorna	Plate	Secretary	Curl Curl Lagoon Friends Inc
Mr	Peter	White		
M/s	Margaret	Miller		
Mr/s	G	Wait		
Mr	David	Luff		
Mr	Geoff	Emanuel		
Mr & Mrs	R & C	Patton		
M/s	Gillian	Reffell	Principal Officer Sydney Planning	EPA
M/s	Margi	Abrahams	Manager, Land Use & Transport Integration	NSW Department of Transport
Mr	Chris	Hanson		

C. Those who attended a Workshop on the Discussion Papers

Title	FirstName	LastName	Organisation
Mr	Ian	Armstrong	
Mr	Nev	Bickerstaff	
Mr	Ray	Cox	Curl Curl Lagoon Friends
Mr	Scott	Daines	
Mr	Geoff	Emmanuel	
M/s	Kate	Herbert	
Mr/s	M	Kelly	
Mr	Graeme	Macy	
Mr/s	Lee	McKee	Curl Curl Lagoon Friends
Mr & Mrs	Barry & Phyll	Morris	
M/s	Mary	Newlinds	
Mr	Ron	Patton	
Mr & Dr	Tom & Annette	Peel & Sammut	
Mrs	Betty	Ratcliffe	Brookvale Valley Community Group
M/s	Colleen	Russell	
M/s	Ann	Sharp	
Mr	Jack	Tilburn	
Mr	Peter	White	
Mr/s	H	Wilkins	
M/s	Robyn	Wood	Belrose Rural Community Association

D. Those who wrote a submission on the Draft Environmental Strategy

Title	FirstName	LastName	Organisation
Mr	David	Luff	
Ms	Skye	Addison	
Mr	Alan	Latta	
Ms	Gillian	Reffell	NSW EPA
Mr	Bill	Conroy	
Mr	Peter	White	
Ms	Megan	Glover	
Ms	Lee	McKee	
Ms	Giselle	Howard	DLAWC
Mrs	Mary	Armstrong	Belrose Rural Community Association
Mrs	Ann	Sharp	
Mrs	Betty	Ratcliffe	
Mr	Fred	Moses	

APPENDIX 2 - OUTLINE OF HOW RECOMMENDATIONS FROM THE YOUTH ENVIRONMENT FORUM HAVE BEEN INCORPORATED INTO THE STRATEGY.

YEF Suggestions	Relevant Environmental Strategy Action(s)
Biodiversity	
Animal Crossings	5
Endangered animals	10,11,19,20
Bush Regeneration	44,45,46,47
Water Cycle Management	
Over fishing and beach patrol	92
Gates over drains	86,89,90
Restrictions on fishing	119
Water Traps	86,89,90
Environmental Quality	
More clean up days	133
Use biodegradable products	151
More bins/recycling bins	133
More user friendly bins	133
Clean up rewards	170
Walk instead of driving	165-168, 208
Composting	131, 250 - 267
More vegetation bins	131
Fast food plates	278
Fines for environmental damage	137, 139, 147
Glass milk bottles	278
Planning and Development	
Change industrial pattern	213
Improved public transport	190, 201, 202
Better development plans at Council.	186, 188, 190, 192, 213, 214.
Less concrete	85, 199
Social Environment	
Educate companies	86, 89, 130
Protest to government	93, 290, 291, 293 - 295
Increase public awareness	250 – 267
Improved education on environment matters.	250 – 267
Maintain these Forums	291
Be a good role model	250 – 267, 274
Don't overuse limited resources	274
Adds/talking	294, 295
Use hydro and solar power	164, 172
Walk instead of driving	165 - 168
Fix cars - energy efficient	250 – 267, 274 (Only really an educational role for Warringah)
Change to a sustainable lifestyle	250 – 267

APPENDIX 3 - OUTLINE OF HOW WARRINGAH'S ENVIRONMENTAL STRATEGY ADDRESSES SOME LOCAL SUSTAINABLE DEVELOPMENT PRINCIPLES.

The Local Government Unit at the Institute for Sustainable Futures (ISF) of the University of Technology, Sydney has for several years been working closely with local government around Australia on furthering sustainability at the local level. In this time staff at the Unit have been exposed to a range of issues around the central theme of sustainability at the local level as well as keeping up to date with latest research and thinking in this field.

As a result of this combination of academic and hands on experience, the Local Government Unit at the Institute for Sustainable Futures (ISF) have proposed a number of "local sustainable development principles" as key areas that need to be addressed to further sustainability at the local level. These principles are briefly described below followed by an example of actions proposed in this Strategy that will assist in addressing each "local sustainable development principles" in Warringah.

Local Sustainable Development Principles

1. **Consolidation around train station and bus routes** - Higher development densities, restricted parking, traffic calming, mixed uses and quality public spaces.
2. **Improve rail, bus, cycling and walking facilities.**
3. **Protect bush, coastline and quality agricultural land.**
4. **Promote nature in the town** - Community gardens, street trees.
5. **Promote community in the towns** - Street reclaiming, festivals.
6. **Promote the neighbourhood economy** - Corner shops, home industries.
7. **Delegate resource management to the neighbourhood level** (where possible), as opposed to big pipes solutions.
8. **Promote regional planning and monitoring** (with feedback).

How are these Principles addressed in this Draft Environmental Strategy?

ISF Local Sustainable Development Principles	Example of Relevant Actions in this Strategy
Consolidation around train station and bus routes	186, 188, 190, 195 – 200, 204, 213, 214.
Improve rail, bus, cycling and walking facilities	165, 166, 201 – 212.
Protect bush, coastline and quality agricultural land	1,7,10,11,16,19-21,45,55, 59, 83, 87, 100, 108, 109, 111, 186.
Promote nature in the town	64-82, 292.
Promote community in the towns	209, 284, 292, 296, 297.
Promote the neighbourhood economy	191, 214, 265, 266, 276, 292.
Delegate resource management to the neighbourhood level	4, 14, 88, 94.
Promote regional planning and monitoring	10, 18, 19, 59, 93, 106, 119, 125, 126, 136, 193, 194, 202.



**“Produced by Warringah Council
July 2001
Publication No. PPC 0701-1”**