

ATTACHMENT BOOKLET 1

ORDINARY COUNCIL MEETING

TUESDAY 30 MAY 2017

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Council Policy

Access to Information

Policy Statement

Council is committed to:

- Openness and transparency in the conduct of its public functions
- Pro-active disclosure and dissemination of information about operations, plans and decisions or information that will enhance quality of life and economic development of the community
- Provision of access to Council information unless disclosure in a particular case would be contrary to the public interest.

Principles

- Council will promote disclosure and dissemination of information about operations, plans and decisions, and information that promotes community advancement on its website wherever practicable, and will facilitate public access through this and other appropriate mediums.
- Information required by law to be available for public inspection will be posted on the website, unless internet access poses an unacceptable risk of interference with privacy through potential data gathering and matching techniques.
- Any person is entitled to have information about their place of residence suppressed from documents available for inspection where disclosure would endanger personal safety, or removed from any register available for public inspection in accordance with the NSW Privacy and Personal Information Protection Act.
- Other Council information not posted on the website will be available for inspection unless disclosure on balance is contrary to the public interest.
- Copying of some information may be restricted where the Copyright Act imposes limitations.
- Council Guidelines on Access to Information will list the types of information available including public registers available for inspection.
- The Guidelines will also list the categories of information not available because of legislative restrictions or because disclosure is likely to be contrary to the public interest. Documents of this kind include those that contain information about the personal affairs of other ratepayers, commercially sensitive information, or information which if disclosed would have an adverse effect on Council's law enforcement or other functions, such as the identifying particulars of complainants.

As per Government Information (Public Access) Act requirements, Council information will be made available to the public in the following ways:

1. Mandatory disclosure of open access information – information published on Council's website to comply with Sections 6 & 18 of the GIPA Act.	2. Proactive release – information that Council chooses to disclose without there being a legal requirement to do so as per Section 7 of the GIPA Act.
3. Informal release – information released in response to a request without requiring a formal application as per Section 8 of the GIPA Act.	4. Formal access application – Information that is released to a member of the public upon submitting a formal application after public interest considerations have been taken into account.

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Broad requests for access to a large number of unspecified documents which, if processed, would divert substantial Council resources from dealing with other requests, or from performing other Council functions may be refused on the grounds that such a diversion of resources is contrary to the public interest.

Any individual has a right to know what personal or health information Council holds about him or her, to access that information in accordance with the provisions of the NSW Privacy and Personal Information Protection Act and the NSW Health Records and Information Privacy Act, and to amend that information in certain circumstances.

Councillors need to have access to information held by Council to help them make informed decisions on matters under their consideration. This information should be relevant and appropriate to the discharge of their obligations e.g. records relating to matters before Council or due to be listed.

Councillors wishing to access records in relation to a matter of personal interest have the same rights as other members of the public. Access may be obtained, for example, under the:

- Privacy and Personal Information Protection Act 1998
- Health Records and Information Privacy Act 2002
- State Records Act 1998, or
- Government Information (Public Access) Act 2009.

Councillors are required to capture records under the *State Records Act 1998*. The main responsibility that Councillors have under this legislation is to ensure that *State Records* are captured into Council's electronic document and records management system.

A *State Record* is defined as *any record made or received when exercising an official function of a public office*.

Councillors are briefed in relation to their recordkeeping responsibilities as part of their induction.

The General Manager has authority to approve Guidelines for Information Access, which is to be available to members of the public.

Scope and application

This policy applies to all employees, agents and officers of Northern Beaches Council, along with all Councillors.

References and related documents

- Government Information (Public Access) Act 2009
- Environmental Planning and Assessment Act 1979
- Privacy and Personal Information Protection Act 1998
- Health Records and Information Privacy Act 2002
- Copyright Act 1968

Definitions

Nil

Responsible Officer

Chief Information Officer

Review Date

May 2021

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2017	First draft Northern Beaches Council policy for exhibition	2017/128391

Council Policy

Enterprise Risk Management

Policy Purpose

The purpose of the Policy is to communicate Council's commitment to:

- using risk management as a tool to effectively manage risk as an integral part of planning and decision making across the organisation
- manage identified risks and actively monitor the risk environment
- to establish clear guidelines to ensure that councillors and staff at all levels are aware of potential risks and of their individual responsibility for the effective management of those risks.

Policy Statement

To build the Northern Beaches Council into an innovative organisation that fosters flexibility, seeks opportunity and focuses on results. Council recognises the importance of a risk framework to strengthen its capacity to effectively identify, understand and capitalise on challenges and pursue opportunities.

Council recognises that unmitigated risks can adversely impact its ability to achieve strategic and operational objectives. Accordingly, Council is committed to a holistic, consistent and systematic approach to risk management to ensure that risks are identified, fully understood, adequately communicated, monitored and effective controls put in place to manage risks.

Council's approach to Enterprise Risk Management (ERM) will be consistent with the *Australian/New Zealand Risk Management Standard: AS/NZS ISO 31000:2009* and the directions under the *Local Government Act (1993)*.

This policy seeks to give effect to this commitment and approach.

Policy Objectives

The objective of this Policy is to establish a risk management framework that will formalise the principles and practices for effective risk management across Council. The primary objectives of Council's ERM Policy are:

- to promote sound decision making using the ERM Framework to ensure Council move with increased confidence towards the achievement of our objectives
- to promote good governance by demonstrating transparent and responsible risk management processes aligned with accepted best practice standards and methods
- to promote a risk aware culture where all Councillors and all staff assume accountability for managing risks
- to effectively integrate risk management into Council's executive planning activities to ensure the achievement of strategic objectives as identified in the Community Strategic Plan and associated documents
- to implement the risk framework to enhance accountability and deliver positive strategic and operational outcomes
- to provide staff with necessary tools to manage risks
- to provide an innovative, flexible and resilient framework through continuous refinement to ensure the consistent management and/or mitigation of risks which may impact on Council.

Council's understanding and management of potential risks will provide greater certainty and security for councillors and Council staff, for our stakeholders and for our community. Council's ability to make sound decisions using a risk management tool will ensure we move with increased confidence towards the achievement of our objectives.

Risk Management Principles

The Northern Beaches Council ERM Framework complies with the risk management process prescribed in *AS/NZS ISO 31000:2009* and seeks to achieve principles set by the Standard.

The principles and practices of risk management involve coordinated activities to direct and control the organisation with regard to risk. It is a systematic process that involves:

- establishing the context of risks
- identifying risks
- analysing risks
- addressing risks
- monitoring and reviewing risks
- communication and consultation.

Risk management does address uncertainty but it cannot eliminate all risk. Council's risk management is implemented and maintained as follows:

- The ERM Framework considers the internal and external context and is therefore aligned with strategic objectives, statutory obligations, processes, services, culture, structure and operating environment.
- Risks are prioritised on a 'top down' basis. The key emphasis is on higher level 'strategic' risks cascading to operational risks. This approach enables the full integration of managing risk throughout all Council's processes.

Council's approach is documented as follows:

- **Why** the ERM Framework will be implemented (outlined in this Policy).
- **How** the Policy will be implemented (contained in the Risk Management Strategy, supported by risk procedures and an action plan).
- **Where** identified risks will be captured (Risk Register with treatment plans).

Risk Appetite Acknowledgment

Council acknowledges that at times it must undertake activities that inherently carry greater risks in pursuit of its vision and strategic objectives. This will necessitate that Council may accept risks that:

- facilitate transition and transformation opportunities
- generate additional sources of income, improve efficiency and seek savings
- maintain and/or improve levels of services to the community
- are proportionate with the potential reward.

Council recognises that its acceptance of risk will always be subject to ensuring that potential benefits and risks are fully understood and that sensible measures to manage the risks are established.

Council, Senior Management and staff will have regard for Council's stated Risk Appetite detailed in the ERM Strategy in both strategic and operational decision making. Council's risk appetite will be reviewed annually or whenever a significant change to Council's operating environment occurs. This review will be coordinated by the Manager, Enterprise Risk. Proposed changes to Council's Risk Appetite will be endorsed by Senior Management following review by the Audit, Risk and Improvement Committee.

Roles and Responsibilities

The following is a broad overview of the roles and responsibilities for the management of risk within Council. Full roles and responsibilities are contained in the Risk Management Strategy.

Council is ultimately responsible for adopting and committing to the ERM Policy, monitoring the strategic risk environment and considering risk management issues contained in Council reports.

Senior Management are responsible for ensuring the ERM Framework (Policy and Strategy) are effectively implemented and monitored within their areas of responsibility.

All staff are responsible for adequately considering risks associated with decisions they make and to ensure they consistent with the ERM Framework.

Audit, Risk and Improvement Committee is responsible for periodic oversight of the ERM Framework and that it is implemented effectively.

Scope and application

Senior Management will be responsible for creating an environment where staff assume responsibility for Enterprise Risk Management through consistent Risk Management practices as part of their everyday activities and decision making. Appropriate training and resources will be made available to assist staff in identifying, assessing and controlling risks.

Responsible Officer

General Manager Customer and Corporate

References and related documents

This Policy provides the over-arching guidance for Council's Risk Management Program. It is supported by:

- Risk Management Strategy
- Risk Management Procedure
- Risk Management Risk Register
- Fraud and Corruption Control Plan
- Business Continuity Plan

If there are any amendments to this policy, all other policies and plans must be reviewed in order to ensure that they align.

Legislation

- Local Government Act (NSW) 1993
- Local Government (General) Regulation 2005
- Australian Standard AS/NZS ISO 31000:2009 Risk Management Principles and Guidelines

Definitions

Senior Management: Refers to Level 1 (CEO), 2 (General Managers) and 3 (Executive Managers)

Strategic: Longer term and/or high level risks/opportunities that have the potential to impact on Council's ability to deliver its key services, e.g. preparing for an ageing workforce, poor financial planning and failure to comply with legislative requirements.

Operational: Day to day risks/opportunities that impact the quality of the services that Council delivers, e.g. poor contract management, the adequacy of the Business Continuity program or the effectiveness of the Workplace Health and Safety system.

Residual risk: The remaining level of risk after risk treatment measures have been taken into account.

Risk: The effect of uncertainty on objectives. Note: effect can be positive or negative

Risk acceptance: An informed decision to accept the likelihood of a particular risk and its consequences.

Risk Appetite: The level of risk that an organisation is prepared to accept before mitigation action is deemed to be necessary.

Risk Tolerance: The readiness to bear the risk (after risk treatment) in order to achieve objectives.

Risk analysis: A systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.

Risk assessment: The overall process of risk analysis and risk evaluation.

Risk control: That part of risk management which involves the implementation of policies, standards, procedures and physical changes to eliminate or minimise adverse risks.

Risk evaluation: The process used to determine risk management priorities by comparing the level of risk against predetermined standards, target risk levels or other criteria.

Risk identification: The process of determining what can happen, why and how.

Risk management: The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects.

Risk management process: The systematic application of management policies, procedures and practices to the task of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk.

Risk treatment: Selection and implementation of appropriate options for dealing with risk.

Review Date

The policy is due for review in the first year of the new elected Council and then every 2 years thereafter. The next review is due in July 2018.

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2017	First draft Northern Beaches Council policy for exhibition	2017/136547
2			
3			

Council Policy

Mayoral Discretionary Fund

Policy Statement

The Mayoral Discretionary Fund provides the opportunity for the Mayor, on behalf of Council, to respond to requests for financial assistance from individuals and community organisations. The Policy identifies the key responsibilities of authorisation and accountability for the Mayor and Council staff and ensures transparency in the expenditure of funds.

Purpose

The Mayoral Community Benefit Fund purpose:

- To support individuals and community organisations through small financial donations. Groups do not have to be incorporated.
- To assist community organisations to undertake initiatives and services that benefit the local community.
- To assist local residents to attend events/conferences that further develop their education or sporting endeavours at a representative level.
- The amount allocated to the Fund is designated each year in the Annual Budget.
- The maximum amount able to be allocated to an individual or community organisation is \$1000 and only one payment can be made to an individual or community organisation within the same financial year.
- The Chief Executive Officer or General Manager Customer and Corporate shall certify that the expenditure is in accordance with the policy and that funds are available.
- Fund is not to be used for projects/programs aimed to support or promote political parties or specific religious beliefs.
- Recipient and project details will be reported to Council annually.

Scope and application

This policy applies to all members of the public who request financial assistance, employees, agents and officers of Northern Beaches Council, along with all Councillors.

References and related documents

Local Government Act 1993 Sect 226, Sect 356 and Sect 377

Local Government (General) Regulation 2005 Sect 207 (Responsibility for Accounting Records)

Policy on Payment of Expenses and Facilities to Mayor and Councillors

Responsible Officer

Executive Manager Governance & Risk

Review Date

July 2021

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2017	First draft Northern Beaches Council policy for exhibition	2017/136008

Council Policy

Privacy

Policy Statement

Council is committed to:

- protecting the personal information that Council collects from individuals
- managing personal information in accordance with the Information Protection Principles (IPPs).

Principles

The IPPs define the legal obligations that Council must comply with in relation to the management of personal information. They relate to the collection, storage, use and disclosure of personal information.

Collecting Personal Information

Council collects personal information for business purposes in order to provide services to the community. When Council collects personal information, the following applies:

- personal information must be collected for a lawful purpose
- personal information must be collected directly from the person to whom the information relates or from someone authorised to provide the information
- the person to whom the information relates must be advised the information is being collected, why it is being collected, and who will be storing and using it
- the personal information must be relevant, accurate, complete, up-to-date and not excessive
- when collecting personal information, the person from whom the information is being collected must be informed if the information is required by law or is voluntary and if there are any consequences to not providing it.

Privacy Protection Notice

Council must include a Privacy Protection Notice in all forms and correspondence that result in the collection of personal information to ensure that people are aware that their personal information is being collected. The Privacy Protection Notice must advise the following:

- that the information is being collected
- the purposes for which the information is being collected
- the intended recipients of the information
- whether the supply of personal information is required by law or is voluntary, and any consequences for the personal if the information (or any part of it) is not provided
- the existence of any right of access to, and correction of, the information
- Council's name and address as the agency that is collecting and holding the information.

Personal Information about Children

Council collects personal information about children and youths. Whether a child or youth has the capacity to make his or her own privacy decisions will be assessed on a case by case basis.

For children who are under 18 years old, or who otherwise do not have capacity to make these decisions, or where we cannot make an assessment of their capacity, Council will manage requests for access, consent and notices in relation to personal information via the parent and/or guardian. Council will treat consent given by a parent and/or guardian as consent given on behalf of the child.

Storing Personal Information

Council must store personal information securely, keep it no longer than necessary and dispose of it appropriately. It should also be protected from unauthorised access, use, modification or disclosure.

Using Personal Information

When using personal information, it must be used for the purpose for which it was collected, or a directly related purpose that the person would expect. Otherwise, the consent of the person to whom the information relates is required.

The information must be relevant, accurate and up-to-date before being used.

Accessing Personal Information

Council must allow the person to whom the information relates to access their personal information without excessive delay or expense and allow them to update, correct or amend their personal information.

Limitations on Access and Amendments to Personal and Health Information

A person is only entitled to access their own personal and health information with the following exceptions:

- if the person to whom the information relates has advised Council in writing to provide access to another person
- if the person to whom the personal information relates is incapable of accessing the information themselves and another person has been authorised to do so
- if a serious or imminent threat to life or serious health and safety can be avoided through the release of personal information.

Disclosing Personal Information

Council can not disclose sensitive personal information without consent.

Other personal information can only be disclosed in limited circumstances. Disclosure requires consent unless the person was advised that it would be disclosed at the time of collection or if the disclosure is directly related to the purpose for which it was collected and it could be assumed the person would not object or if the disclosure is required to prevent a serious and imminent threat to any person's health or safety.

If a person believes the disclosure of their address or contact details would place them or their family at risk, they can request their address or contact details be withheld from public view.

Scope & Application

This policy applies to all employees, agents and officers of Northern Beaches Council, along with all Councillors.

References and related documents

- [Government Information \(Public Access\) Act 2009 \(NSW\)](#)
- [Privacy and Personal Information Protection Act](#)
- [Privacy Act 1988 \(Commonwealth\)](#)
- [National Privacy Principles \(Commonwealth\)](#)
- [Privacy Code of Practice for Local Government](#)

Definitions

Personal Information:

Information or an opinion about a person whose identity is apparent or can be reasonably ascertained from the information or opinion. This information can be on a database and does not necessarily have to be recorded in written form.

Personal information does not include information about a person that is contained in a publicly available publication.

Health Information:

Information or an opinion about:

- the physical or mental health or a disability of a person
- an person's express wishes about the future provision of health services to him or her
- a health service provided, or to be provided, to a person.

Other personal information collected:

- to provide, or in providing, a health service
- in connection with the donation, or intended donation, of an person's body parts, organs or body substances
- regarding genetic information about a person arising from a health service provided to the person in a form that is or could be predictive of the health (at any time) of the person or of a genetic relative of the person.

Responsible Officer

Chief Information Officer

Review Date

At least every four years or as required. It is proposed the next review date will be 4 May 2021.

Revision History

Revision	Date	Change	HPE CM Ref
1			
2			
3			

Council Policy

Procurement

Policy Statement

This policy provides the framework for Northern Beaches Council to achieve value for money from their procurement whilst being fair, ethical and transparent.

Principles

The following principles will guide all procurement activities.

Value for Money

Obtaining value for money in delivering the best outcomes for our community is the overarching requirement for procurement at the Northern Beaches Council. Value for money is not necessarily the lowest price; it includes consideration of many factors including quality, performance history, whole of life costing - including the cost of environmentally responsible disposal at end of life, timely delivery, risk and WHS requirements.

Ethics and Probity

Council procurement involves the expenditure of public funds for community benefit and is governed by strict considerations of probity, transparency and accountability to ensure that the decision making processes withstands public scrutiny. All staff must adhere to high standards of probity in procurement, uphold high standards of integrity and fairness and undertake their duties in accordance with Councils Statement of Business Ethics and Code of Conduct.

Equity

Procurement processes are developed to ensure that suppliers are provided equal opportunity to contract with Council in the provision of works, goods and services.

Environmental Sustainability

Council will promote high-quality environmental standards and responsibility and make procurement decisions which aim to reduce resource consumption, biodiversity depletion and environmental impact where possible. The entire life cycle of goods and services are to be considered, taking environmental risks and benefits into account whilst avoiding unnecessary consumption - for example inputs of natural resources, energy and water in the manufacture, use and disposal of goods

Social Sustainability and Local Supplier Engagement:

Council is committed to assisting local businesses in working with Council and will ensure that its processes are transparent and do not disadvantage local business. Certain circumstances may present opportunities to generate social value through the procurement processes, these opportunities will be pursued where applicable to generate positive outcomes and benefits for the people and communities that Council serves.

Compliance

Council has a legislative requirement under the Act to tender for works, goods and services where expenditure for the life of the contract is greater than \$150,000 (including GST). Procurement is also undertaken in accordance with the Tendering Guidelines for NSW Local Government and the NSW Code of Practice for Procurement.

A Robust Procurement Framework

A policy, operational processes, manuals and templates which provide guidance in achieving the best value for money delivery of quality services to our community. To the extent possible, procurement processes will be kept simple so as to maximise efficiency and reduce costs.

Key components of the framework are:

- *Financial Thresholds* which define the procurement processes for different levels of expenditure. Processes to be followed for values below the \$150,000 tender threshold prescribed in the Act are detailed in operational guidelines and the procurement manual.

- *Financial Delegations* which define the levels of authority that specified staff have to approve contracts and payments. Prior to the commencement of any procurement process:
 - I. Funds must exist within an approved budget; and
 - II. The appropriate financial delegate must be aware of the procurement.

Breach of Policy

All procurement activity must be conducted in accordance with this policy and the associated procurement framework. Failure to comply may result in disciplinary or legal action. The Independent Commission Against Corruption (ICAC) has been established to protect the public interest, prevent breaches of public trust and guide the conduct of public officials. Council has an obligation to report serious matters to the ICAC and/or Police which potentially could result in civil or criminal proceedings.

Scope & Application

This policy applies to all employees, agents and officers of Northern Beaches Council, along with all Councillors.

References and related documents

- Section 55 Local Government Act 1993 (NSW)
- Part 7 Local Government (General) Regulation 2005 (NSW)
- DLG Tendering Guidelines for NSW Local Government
- Northern Beaches Council Statement of Business Ethics – 2016
- NSW Code of Practice for Procurement 2013
- Northern Beaches Council Procurement Manual and associated templates

Definitions

The Act: Section 55 Local Government Act 1993 (NSW)

Regulations: Part 7 Local Government (General) Regulation 2005 (NSW)

Probity: Ethical behaviour that upholds the values of honesty and integrity and ensures impartiality, accountability and transparency

Procurement: the overarching business function of acquiring goods and services; the end to end process of identification, sourcing, market engagement, evaluation, contract award, contract management and review.

Goods and Services: where Goods and Services are referred to in this policy, it is also applicable for Works, Consultancies and Lease agreements.

Responsible Officer

Manager Procurement

Review Date

May 2021.

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2017	First draft Northern Beaches Council policy for exhibition	2017/124289

Policy

Scotland Island – Emergency Water Pipeline & Non-Potable Water Supply

Policy Statement

This policy establishes:

- the role of the Scotland Island Residents' Association (SIRA) and Sydney Water in the supply of non-potable water to Scotland Island
- Council's role which is limited to involvement in the supply of emergency water to Scotland Island
- that Council's costs are reimbursed on a user pays basis

Principles

The primary agreement for the supply of non-potable water to Scotland Island is between the Scotland Island Residents' Association (SIRA) and Sydney Water. Through this primary agreement SIRA shall:

- ensure that the agreement with Sydney Water is valid and up to date
- ensure that the non-potable water is only supplied on that basis, is clearly sign posted for that purpose, is only used in the manner and for the specific purposes as specified under that agreement, there is an education program to highlight this restricted use along with regular monitoring
- ensure that secondary water supply lines that distribute the non-potable water supply are well maintained to the required standards as per Sydney Water specifications
- nominate a person(s), being a resident(s) member of SIRA to be the authorised person(s) to issue water from the standpipe to residents of Scotland Island
- charge users for the supply of the non-potable water at a rate that covers the reasonable costs involved including a 20% service commission and maintenance of the SIRA non-potable water supply network
- reimburse Northern Beaches Council as per invoice for the full cost of water used as per account issued by Sydney Water to Council
- keep appropriate non-potable water supply and accounting records in a form that can be readily audited.
- keep relevant insurance policies up to date.

Separate to this agreement, Northern Beaches Council's involvement will be limited to the following:

- keep its existing submarine emergency water supply pipeline from Church Point Reserve to Scotland Island along with associated meters and standpipes in good repair and to required standards (including checking and monitoring for leaks) utilising funds held in Trust by Council for this purpose derived from SIRA through user pays arrangement. It should be noted that this Trust fund is not for a pipeline replacement and should this be required it will need to be separately funded on a user pays basis
- invoice SIRA as per Sydney Water accounts.
- continue to lobby Sydney Water to seek the provision of a mains water supply and associated sewerage system for Scotland Island.
- ensure that funds held in Trust are only used for the specified purpose and are subject to audit process.

Scope and application

This policy applies to all employees, agents and officers of Northern Beaches Council, along with all Councillors, SIRA and Sydney Water.

References and related documents

Nil

Definitions

Nil

Responsible Officer

Executive Manager Transport & Urban Infrastructure

Review Date

July 2021

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2016	First draft Northern Beaches Council policy for exhibition	2017/136541
2			
3			

Council Policy

Storage of Watercraft on Council Foreshores

Policy Statement

This policy is to enable the appropriate storage of watercraft on Council foreshores at the same time as maintaining safe public access and minimising environmental impact.

Principles

1. That Council maintain and update, where necessary, guidelines for the storage of watercraft on foreshore areas, limiting the size and location within approved formal facilities.
2. That Council will make available facilities suitable for the storage of watercraft at appropriate locations which members of the public may rent for a fee as set by the Council. In the case of areas where the land is owned by the Crown and Council appointed as Trust Managers, a temporary licence agreement will be administered and a fee charged as set by the Council.
3. That Council's Rangers police the procedures and provide due notice to owners of unauthorised, abandoned or derelict watercraft outside of approved storage facilities of their removal. Where owners details are unavailable, Council's Rangers shall attach stickers warning that the vessel is due to be impounded, and impound where no action is taken within the relevant timeframe.
4. That Council staff undertake regular inspections of the formal facilities and also dinghies, kayaks and other watercraft stored outside of approved formal facilities within the Northern Beaches Council Area and review Council policy accordingly.

Scope and application

This policy applies to all employees, agents and officers of Northern Beaches Council.

References and related documents

- Local Government Act 1993
- Local Government (General) Regulation 2005
- Impounding Act 1993
- Storage of Watercraft on Council Foreshores Guidelines

Definitions

Abandoned Vessel: Any watercraft which appears to be abandoned.

Derelict Vessel: Any watercraft left on public land which appears to be unseaworthy by the evidence of damage to affect vessel flotation and/or user safety.

Public Land: Land in public ownership that is either owned by Council or administered by Council on behalf of the Crown.

Storage Facilities: Council owned and maintained racks suitable for the storage of permitted watercraft.

Watercraft: Recreational vessels, including (but not limited to) dinghies, kayaks, canoes, outrigger canoes and dragon boats.

Unauthorised Vessel: Any vessel that is not stored in an approved storage facility or which does not have attached current evidence of authorisation for use of an approved storage facility.

Responsible Officer

Executive Manager, Property

Review Date

July 2021

Revision History

Revision	Date	Change	HPE CM Ref
1	May 2017	First draft Northern Beaches Council policy for exhibition	2017/136547
2			
3			

NORTHERN BEACHES COUNCIL DIGITAL TRANSFORMATION STRATEGY

MAY 2017 - DRAFT

NATURALLY CONNECTED

Adopting a digital operating model to put you at the heart of everything we do

NORTHERN
BEACHES
COUNCIL

northernbeaches.nsw.gov.au

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WHAT IS DIGITAL TRANSFORMATION?

“[Digital transformation involves] transforming services to make better use of digital technologies and solutions. This is more than just putting forms online and enabling more online payments. It is not just about doing the same things we currently do more cheaply and faster. It is about business model innovation that challenges the status quo – reimagining current functions and processes to transform services for citizens.”
- (Department of Premier and Cabinet, South Australian Government 2016)

A Digital Transformation Strategy gives Northern Beaches Council goals, strategies and a way forward to guide the Council in the strategic use of digital technologies, processes, values and culture to move to a digital operating model.

WHY IS THIS A PRIORITY?

As the world becomes increasingly more digital, Northern Beaches Council and its community need to adapt and become more innovative. Digital transformation will enable Council to provide a premium service to its customers and community and be a leading workplace for staff. It will also assist the Northern Beaches community to keep pace with a changing digital landscape.

Digital transformation is a tremendous opportunity for staff, customers and our local community to lead simpler and more enjoyable lives by adopting a digital operating model that puts our customers, community and staff at the heart of everything we do.

“Digital [is the] big dial shifter”

- Chris Chapman, Chairman Australian Communications and Media Authority (ACMA) 2006 – 2016

BACKGROUND

Digital transformation is being undertaken by organisations globally from a variety of industries.

Digital Democracy and Joined Up Government

Industry and academic researchers have analysed modes of Digital Transformation in the government space and developed different models to categorise the various activities.

The research concludes (Jayashree and Marthandan 2010) that as government evolves digitally it transitions from:

1. Providing information digitally
2. Allowing transactions digitally
3. Then to a personalised digital experience
4. Digitally joining up with other levels of government
5. Digital democracy

This iteration of the Digital Transformation Strategy focuses on firmly establishing a personalised digital experience (3) and moving into digitally joining up with other levels of government (4).



Figure 1: Stages of Government Digital Evolution. (Adapted from Jayashree and Marthandan 2010)

Digital as an Operating Model

In the context of digital transformation, “digital” is not a medium, a new name for IT, a technology or a project but rather an operating model based on putting you - whether you’re a staff member, resident, business owner or employee, visitor, regulator, agency, politician, supplier or one or any of our other many stakeholder groups - at the heart of everything we do. (Cade 2014)

This strategy will get us part of the way to a digital operating model, by focusing predominately in transforming the culture and data/information aspects of the operating model.

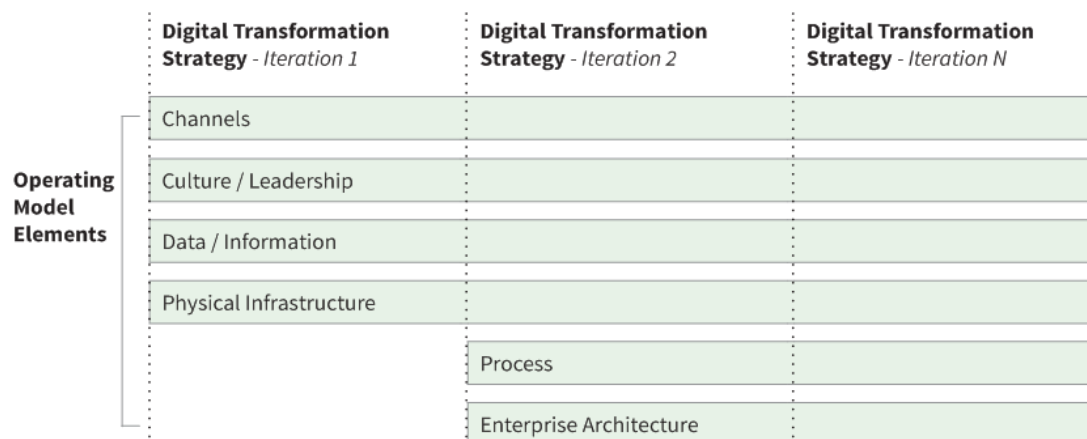


Figure 2: Digital Transformation Strategy Operating Model Elements - Current and Future Strategy Iterations

This leaves big ticket items such as Enterprise Architecture and business process re-engineering for future iterations of digital transformation. In these future iterations, it is envisaged that the business will have stabilised after significant integration work and will have (through this strategy and other initiatives) begun building a digital culture that puts customers, people and needs at the centre of outcomes.

ANALOG CULTURE		DIGITAL CULTURE
<ul style="list-style-type: none"> Pushes products into the market Driven by purchasing and supply 	Customers and Demand	<ul style="list-style-type: none"> Pulls ideas from the market Driven by customer demand
<ul style="list-style-type: none"> Strong hierarchy Slow decision making Process and task orientations Defined tasks (“do this job”) 	Organisation	<ul style="list-style-type: none"> Flat hierarchy Rapid decision making Result and product orientation Empowered employees (“find a way to achieve a goal”)
<ul style="list-style-type: none"> Understands needs of long-standing customers and how to fulfil them Orientation toward status quo, past lessons and accepting constraints Experience and stability count Homogeneous teams, working within departmental silos Career progression within defined paths Focus on planning and optimisation 	Attitudes and Ways of Working	<ul style="list-style-type: none"> Understands needs of digital customers and how to adopt new trends Orientation toward innovation, improvement and overcoming constraints Potential, vision, curiosity, motivation, flexibility and adaptability count Mixed teams working in cross-functional and integrated communities Strong collaboration Rapid, unpredictable career progression Focus on rapid launch and learn

Figure 3: Analog vs Digital Culture (Source: Harshak et al. 2013)

WE ASKED, YOU ANSWERED

14 Hours of Staff Workshops

171 Staff / 268 Ideas

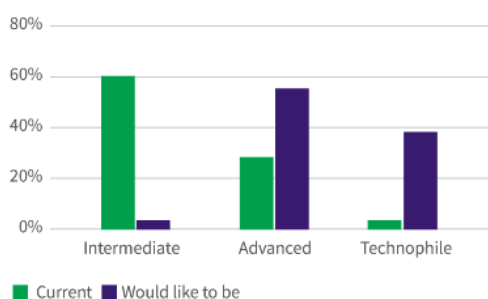
(More detail available in Appendix 1)

We asked about:

- Your technology proficiency and aspiration
- Aspects of digital culture that appeal to you
- Barriers and concerns you envision to Council becoming more digital
- Ideas you have to create a more digital Council and community

You answered:

Technology Proficiency



Staff Top 5 most liked aspects of digital culture

1. Draws ideas from staff, customers & the community
2. Innovative
3. Flexible
4. Driven by external & internal customer demand
5. Fun & engaging

"[Solutions] need to be user friendly and intuitive"

"I like the idea of digital freeing up staff to be able to spend more time with those less digitally minded customers"

"Partner with Universities and TAFE to investigate new ideas"

Community Survey

158 Respondents / 1427 Words of comments

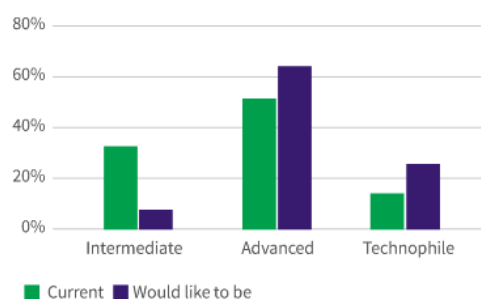
(More detail available in Appendix 2)

We asked about:

- Your technology proficiency and aspiration
- How a more digital Council could most benefit you
- Your concerns about Council becoming more digital
- Your view on digital in relation to a number of Council and community aspects

You answered:

Technology Proficiency



Top 4 benefits identified by the community

1. Easier Transactions
2. Having Your Say
3. More Access
4. Better Service

"It's not just about technology it's about people."

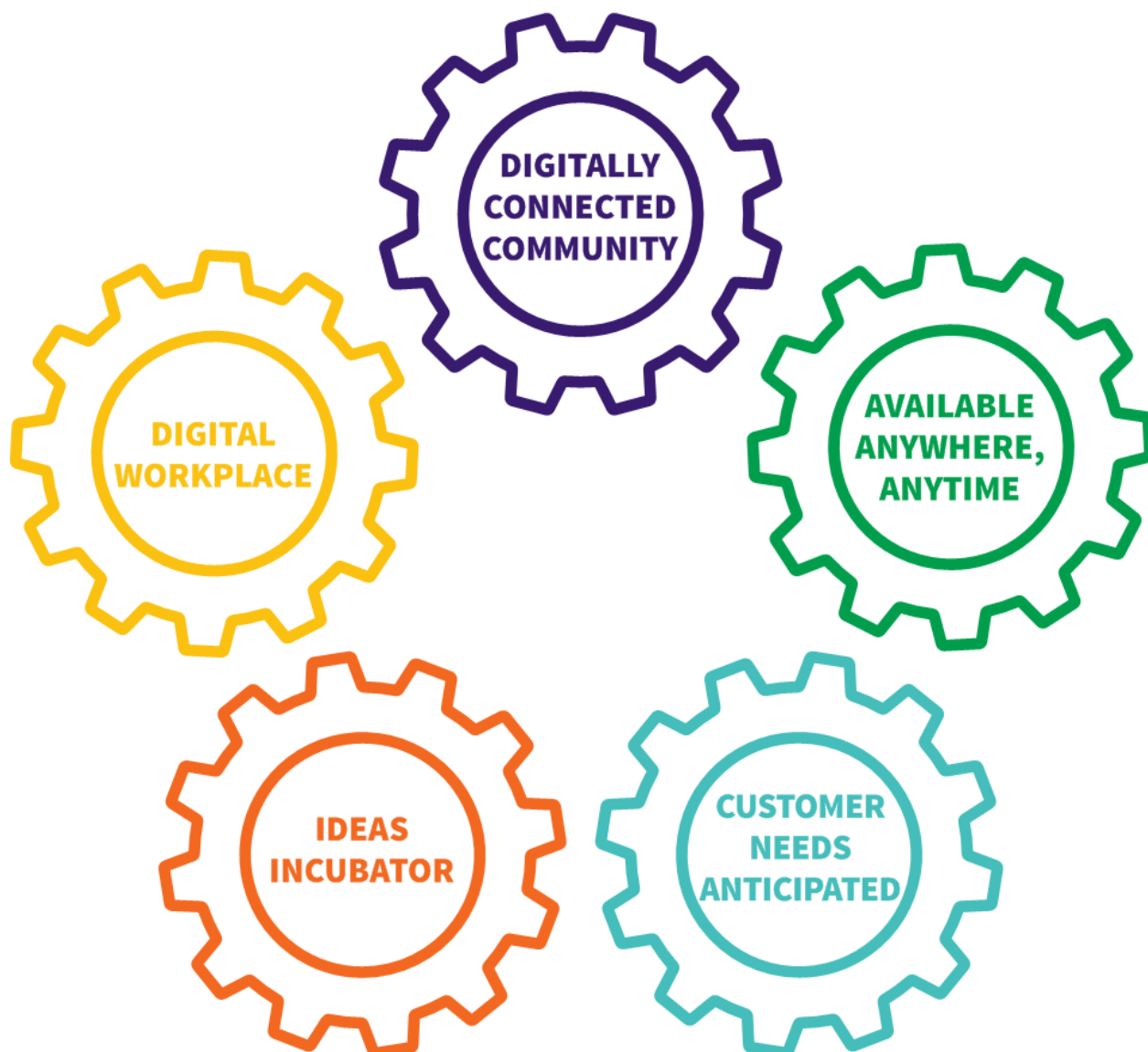
"Better interaction, less paper"

"I want to engage with council in exactly the same way that I engage with my bank, airline or online retailer."

"Needs to be a balance of convenience of online and personal interaction."

WHAT DOES OUR DIGITAL FUTURE LOOK LIKE?

The following goals and their associated strategies form a vision of our digital future and provide a foundation for Northern Beaches Council's digital transformation.



GOAL 1: DIGITALLY CONNECTED COMMUNITY

We are a pillar of our digitally connected community

We engage with people on their terms, and help them innovate and meet their digital aspirations. Our town centres and suburbs have plans for technology infrastructure which we deliver to improve the livability of the area and connect people with each other and services across all levels of government. We use technology to increase transparency and accessibility to become naturally connected.

Strategies to achieve this goal:

- a. We ensure that our digitally connected community is inclusive, provides opportunities for all and does not leave anyone behind
- b. Our data, where appropriate, is transparent, open and accessible
- c. We provide connectivity to internet based services in our community facilities, town centres and other public spaces
- d. We continually improve the ways we engage with our stakeholders and provide transparency and accessibility into our business and services
- e. We support the growth of our local digital economy and form partnerships with industry to foster digital transformation within our business and our community

GOAL 2: AVAILABLE ANYWHERE, ANYTIME

We are available when you are, where you are

We provide transparency of our services and give you control over your interactions with us, no matter how you contact us.

Strategies to achieve this goal:

- a. Our services are flexible, you do not have to visit our offices, but if you choose to visit, you are very welcome
- b. We provide a multi-channel service experience in person, on the phone, in writing or online
- c. We assist you in the use of our digital services
- d. You can manage your data and interactions with us securely

GOAL 3: CUSTOMER NEEDS ANTICIPATED

We anticipate your needs and make your life simpler

We work hard to anticipate the needs of our customers and provide a value on top of our services by using data analytics, market insights and joining up with other levels of government and industry.

Strategies to achieve this goal:

- a. We partner with other levels of government to reduce the number of transactions you need to perform
- b. Using smart technologies, we anticipate your needs and offer valuable outcomes that make your life easier
- c. You can subscribe to receive real-time alerts of information relevant to you and your current activities

GOAL 4: IDEAS INCUBATOR

No one's ideas go unexplored

We value ideas from any source because they are the lifeblood of our digital business.

Strategies to achieve this goal:

- a. We obtain, recognise and investigate ideas through existing and new forums and techniques
- b. We seek out more stakeholders and find ways to encourage more ideas from existing stakeholders
- c. People can track and manage their own ideas as well as follow and provide feedback on other people's ideas
- d. We share our ideas and provide thought leadership in our sphere of influence

GOAL 5: DIGITAL WORKPLACE

Work is an exciting thing we do, not just a place we go to

We promote collaboration and sustainable work-life balance in our own business and within the community and support this through leading digital processes and technology.

Strategies to achieve this goal:

- a. Our staff are equipped with the tools to work effectively anywhere, anytime, where their role permits
- b. Through our processes, our staff are empowered and encouraged to strive for a greater work life balance
- c. Our staff are connected to their teams and the business via the best technologies available
- d. Our staff are engaged and are encouraged to be creative and innovative

HOW WE WILL MOVE FORWARD

The goals of the Digital Transformation Strategy will be achieved via the formation and execution of the following Digital Transformation Plans. These Plans will be an internal Council document and will detail the delivery of initiatives to support the Strategy.

Proposed Plans:

- Architecture and Core Systems Digital Transformation Plan
- Capability Development Digital Transformation Plan
- Culture and Collaboration Digital Transformation Plan
- Customer Experience Digital Transformation Plan
- Economic and Industry Partnerships Digital Transformation Plan
- Any additional Plans as identified by Council officers

Each Plan will address the following:

- Goals to be met
- Initiatives proposed, including budget source
- Benefits and risk assessment
- Change management and engagement plan, including compliance with Council's Community Engagement Framework
- Inclusion action plan
- Link to and/or potential impact on other Strategies, Plans or Policies

Initiatives within the Plans will be assessed against the following criteria:

- Alignment with Digital Transformation Strategy Goals
- Actual benefit to Council and/or the Community, including social, environmental and economic benefits
- Financial feasibility
- Risk

IDEAS TO SUPPORT OUR DIGITAL FUTURE

The following table presents a number of ideas that have emerged from engagement for this Strategy. These ideas are examples of potential initiatives and give a more tangible vision of Council's digital transformation future.

IDEA	OUTCOME	ENABLES
Extend Wi-Fi to additional plazas and community facilities	Goal 1: Digitally connected community	Enable the community and visitors access to the internet and provide quick access to Council's online services, e.g. town centre WiFi with unlimited access to Council services
Data transfer and technology agreement with State Government	Goal 1: Digitally connected community Goal 3: Customer needs anticipated	Reduce the number of times customers have to interact with government at all levels by linking services with state and federal agencies, e.g. automatic parking permit replacement when a new vehicle is registered in the area
Council on The Move - Bringing Your Council to You	Goal 1: Digitally connected community Goal 2: Available anywhere anytime	Not everyone who would like to communicate with Council face-to-face are able to easily make it to one of our Customer Service Centres. The Council customer service bus would bring Council directly to the community, making Council face-to-face services more accessible to everyone.
Cloud collaboration tool trial	Goal 5: Digital workplace	Staff who are not based at computers are able to receive the same level of interaction with the business as computer based staff, e.g. childcare workers receive staff newsletters on their mobile
Innovation program	Goal 4: Ideas incubator Goal 5: Digital workplace	We take active measures to obtain ideas from staff and the community to make the Northern Beaches better, e.g. internal innovation challenge, external "hackathon"
Digital proficiency training for all staff	Goal 4: Ideas incubator Goal 5: Digital workplace	All staff can apply digital thinking and techniques to provide better community outcomes, e.g. all staff to have available elements of the Australia Public Service Data Literacy program
Public GIS cloud	Goal 1: Digitally connected community Goal 2: Available anywhere, anytime	The community has real time information about Council's facilities in the region enabling them to better plan recreation and other local activities, e.g. a fully gamified digital experience for the Connecting Northern Beaches walking track
Open data platform	Goal 1: Digitally connected community Goal 4: Ideas incubator	The whole world has access to open Council datasets and startups and other developers are using them to create value-adding apps and services for our residents, e.g. a public data portal that app developers can connect to
Data analytics centre	Goal 3: Customer needs anticipated Goal 5: Digital workplace	We create a dedicated business analytics function internally that the entire organisation uses to mine vital information about the services we offer and assets we manage, e.g. we have a real-time dashboard showing the current number of customer interactions and the sentiment the customer is feeling towards us
Intelligent customer service agent	Goal 2: Available anywhere, anytime Goal 3: Customer needs anticipated	We provide a 24/7 chat interface that can handle many first level responses, e.g. a member of the public can find out how to book the basketball courts at Keirle Park and receive real-time availability of them using an interactive chat program
Northern Beaches IoT* Hub	Goal 4: Ideas incubator	We are seen as the national go to location for IoT startups and researchers e.g. we provide facilities needed by IoT startups to grow and build their businesses such as trial sites, radio bandwidth and facilities
Ingleside: The World's First IoT* Community	Goal 1: Digitally connected community Goal 3: Customer needs anticipated	We explore opportunities for integrating IoT into the Green Star Ingleside Community, including to support the community's sustainability goals by, for example, installing sensors to monitor water and electricity use. We could also collaborate with researchers in the IoT space and partner with a global IoT leader to establish Ingleside as an IoT Community.

*Internet of Things (IoT) - "connecting any device with an on and off switch to the Internet (and/or to each other). This includes everything from cellphones, coffee makers, washing machines, headphones, lamps, wearable devices and almost anything else you can think of. This also applies to components of machines, for example a jet engine of an airplane or the drill of an oil rig" (Morgan 2014)

RELATED COUNCIL DOCUMENTS

Community Engagement Matrix, Adopted 28 February 2017
Community Engagement Policy, Adopted 28 February 2017
Customer Experience Strategy, Draft, May 2017
Disability Inclusion Action Plan 2017-2021, Draft, April 2017
Northern Beaches Council Operational Plan 2017/18, Draft, May 2017
Shape 2028: A Discussion Paper to develop the first Community Strategic Plan for the Northern Beaches, March 2017

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APPENDIX 1 - SUMMARY OF STAFF ENGAGEMENT

171 staff from across Council's Business Units and locations were engaged via workshops to contribute to the formation of this Strategy. The following provides a summary of the results.

Characteristics of a digital culture ranked from most to least liked

1. Draws ideas from staff, customers & the community
2. Innovative
3. Flexible
4. Driven by external & internal customer demand
5. Fun & engaging
6. Work life balance viewed as essential
7. Collaborative
8. Transparent & open
9. Focused on outcomes rather than processes
10. Supports experimentation & iterative practices
11. Connected
12. Risk tolerant and unafraid to make mistakes
13. Empowered employees
14. Agile
15. Intrapreneurship encouraged & supported

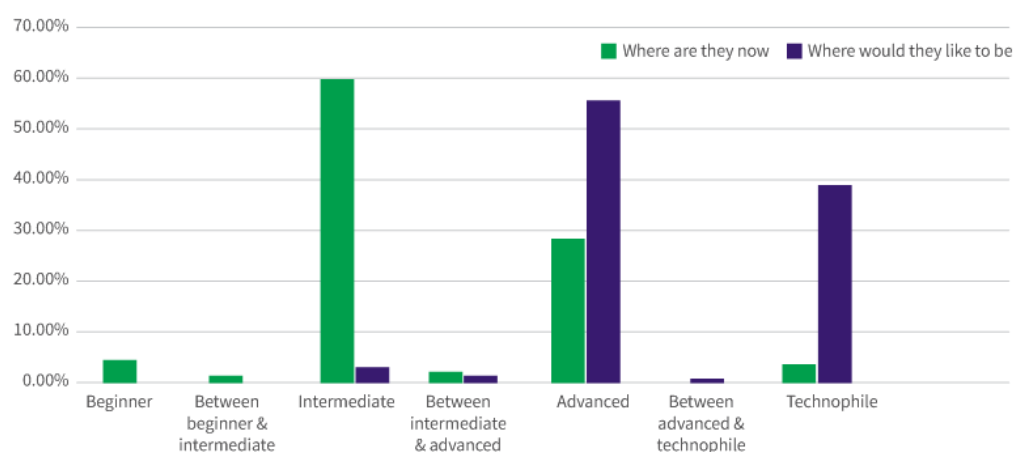
Top barriers identified by staff (a summary of 240 barriers identified by staff)

- Access to technology and ability to use technology
- Concerns about maintaining private information and security
- Resistance to and fear of change
- Lack of appropriate training available
- Existing internal culture and policies

Idea areas identified by staff (a summary of the themes of 268 individual ideas received)

- Training for staff and the community
- Kiosk/chat bot
- Reporting/Requests
- Flexible working
- All staff app and platform with access for outdoor and off-site staff to work
- One Council app/platform
- Contractors online platform
- Storm/emergency reporting
- Surf reporting
- Waste
- Natural environment protection
- Walking / Northern Beaches area interactive app
- Swim centre
- Library
- Community engagement
- Meals on Wheels

Staff Level of Technology Proficiency



APPENDIX 2 - SUMMARY OF COMMUNITY ENGAGEMENT

The community was engaged on this Strategy via the Customer Experience Survey, available on 'Your Say' from 9 Feb 2017 – 2 Mar 2017. The online only Survey had 158 respondents and the following provides a summary of the results from the digital transformation questions.

Top benefits identified

1. Easier Transactions
2. Having Your Say
3. More Access
4. Better Service

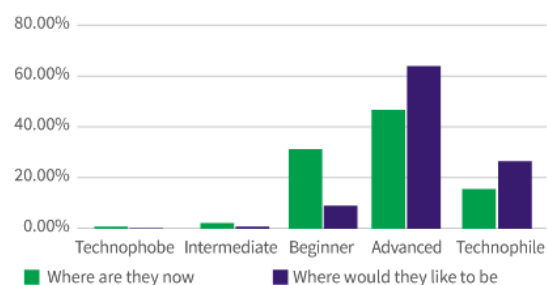
Top concerns identified

1. Security
2. Privacy
3. Access for all
4. Ensuring service

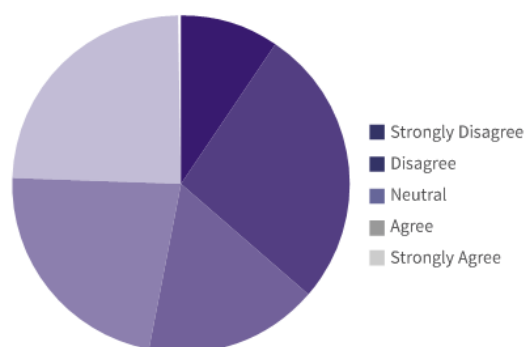
Key themes from Survey comments in relation to digital transformation

- Maintain face to face and phone
- Apps are not always the answer, need a good easy to use website/online platform too
- Help those who are not tech savvy become so
- Improve current service
- Overall a good idea but take care and don't over spend

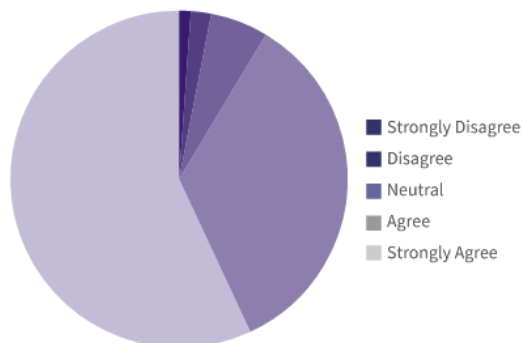
Community Level of Technology Proficiency



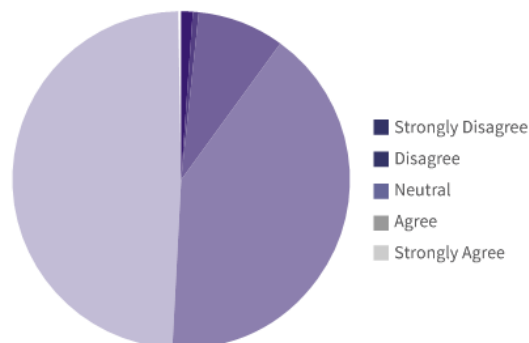
I am more likely to participate or provide feedback in person about a council plan / project /service



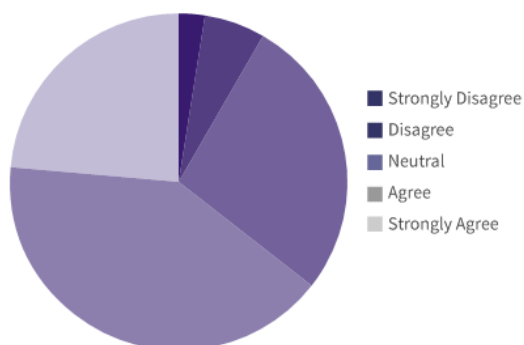
Technology can make council services more widely available



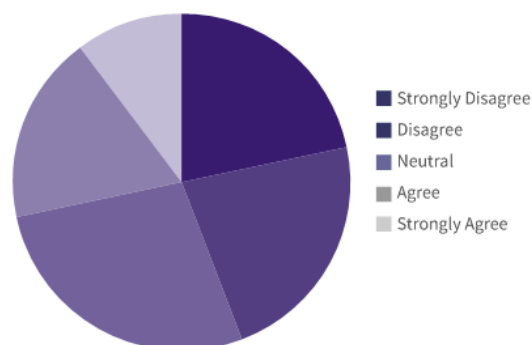
I am more likely to participate or provide feedback online about a council plan / project /service



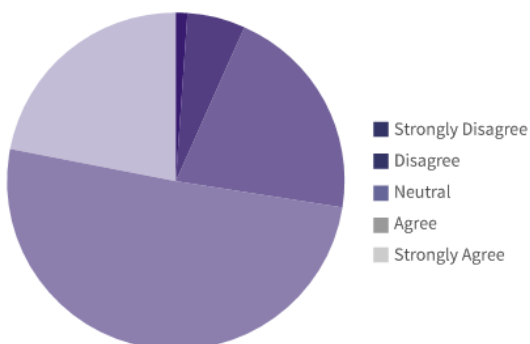
Improving the Northern Beaches digital economy is a high priority



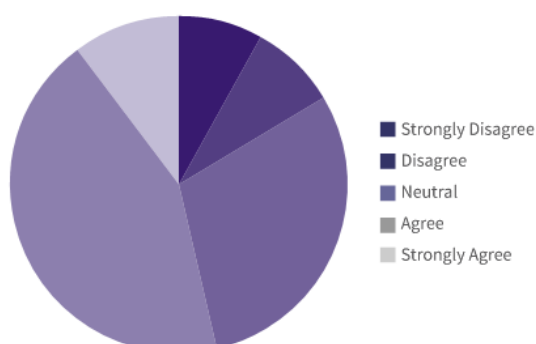
I am likely to use web-chat to interact with council



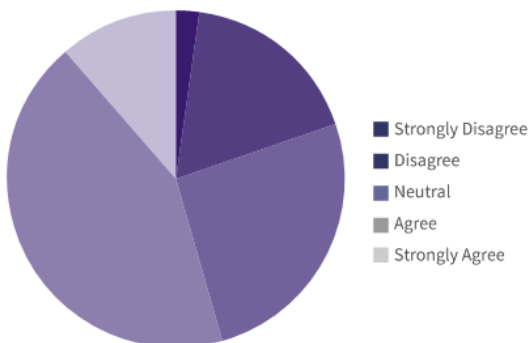
Improving online and digital service solutions should be a priority for the new council



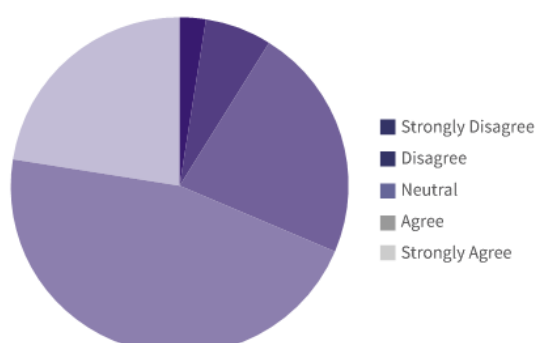
I have trust that council can manage and protect my data



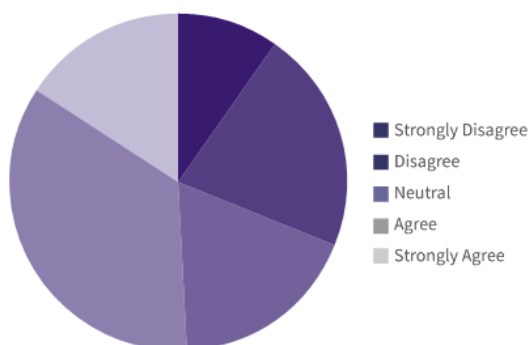
Council has an important role in providing services to help our community become more digitally savvy



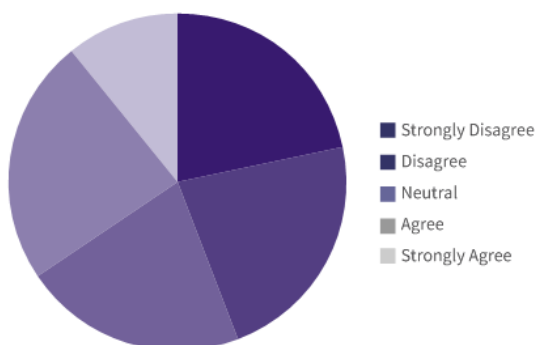
I would like to be able to login to my profile and update my information via Council's website



I am likely to use a mobile app to interact with council



I am likely to use social media to interact with council



APPENDIX 3 - SUMMARY OF INDUSTRY ENGAGEMENT

The digital transformation project steering committee and other selected staff attended 8 presentations from industry technology leaders over a 3 week period.

Each organisation was given the same briefing, that is:

Staff: How can we make Council a great place to work with the technology, training and culture to back it up?

Customer: How can we improve our customer experience through the use of digital?

Community: How can Council best serve the local digital economy and support the Northern Beaches community in becoming more digital?

Organisations presented in a 45 minute timeslot with the following agenda:

15 minutes: Presentation

30 minutes: Q&A with project steering committee

Organisations were requested to present unique content ideally prepared by employees who reside in the Northern Beaches Local Government Area.

northernbeaches.nsw.gov.au

Northern Beaches Council presents

CUSTOMER EXPERIENCE STRATEGY

2017 - 2023

NORTHERN BEACHES
COUNCIL

northernbeaches.nsw.gov.au

MESSAGE FROM GM

The Stronger Councils Framework defines a strong council as one that delivers results for their community, builds relationships and partnerships, and has the culture, people and capability to make this happen.

Customer service in government has traditionally been reactive to customers' needs and we know our customers do not have a choice but to use our services. Being sole service providers makes the customer experience all the more critical as customers simply cannot go anywhere else to receive the services we provide. We also recognise our customers have high service expectations of their new Council. They have all had a 'wow' customer experience. The private sector now dictates our customers expectations of service. We are working hard to deliver on these expectations and to achieve our internal vision of *'Delivering the highest quality service, valued and trusted by our community'*.

As a newly formed organisation we have a lot to do to achieve this internal vision and create the 'wow' factor for our customers. We also recognise the huge amount of goodwill our staff have to provide an excellent experience for our customers. The Northern Beaches Council has a great opportunity as we build our new organisation to use this goodwill and create a new Council that is customer focused, responsive and positively transforms the experience of our customers so that we not only deliver on our internal vision but meet and exceed our customers' expectations.

Mark Ferguson
CEO

About this Strategy

This strategy will set Council on the path towards achieving excellence in the customer experience. Customer experience is broader than customer service. It encompasses the customer's perception of their whole journey from their first thought about interacting with Council through to the completion of that interaction. It is an outside-in customer centric approach rather than an inside-out organisation approach to our role.

This strategy supports our draft community vision of a safe, inclusive and connected community that values the natural and built environment. It also supports the delivery of our corporate values of trust, teamwork, respect, integrity, service and leadership.

This strategy outlines the key customer experience drivers and actions that meet current and emerging customer needs, and aims to achieve the highest level of experience for our customers in an increasingly digital world. It is based on insights gathered through research, surveys, metrics and engagement with employees and customers.

Our approach

In determining our key customer experience drivers we looked at better practice customer-focused initiatives to ensure these drivers will meet our customers' needs and improve their experience with Northern Beaches Council. We reviewed:

- Community Satisfaction Survey Results 2014, 2015 and 2016
- The Northern Beaches Community Satisfaction Survey conducted by Department of Premier and Cabinet 2016 (600 participants, JWS Research)
- Northern Beaches Council brand identity research 2017
- Staff feedback gathered from online engagement and workshops
- Complaints, compliments and voice of customer feedback data from three previous Councils
- Survey feedback from our community database
- Feedback from community leaders
- Emerging customer trends
- ABS 2011 Census data.





“The customer service rep was extremely pleasant and VERY helpful... she went out of her way to assist me. She was an absolute pleasure to deal with.”

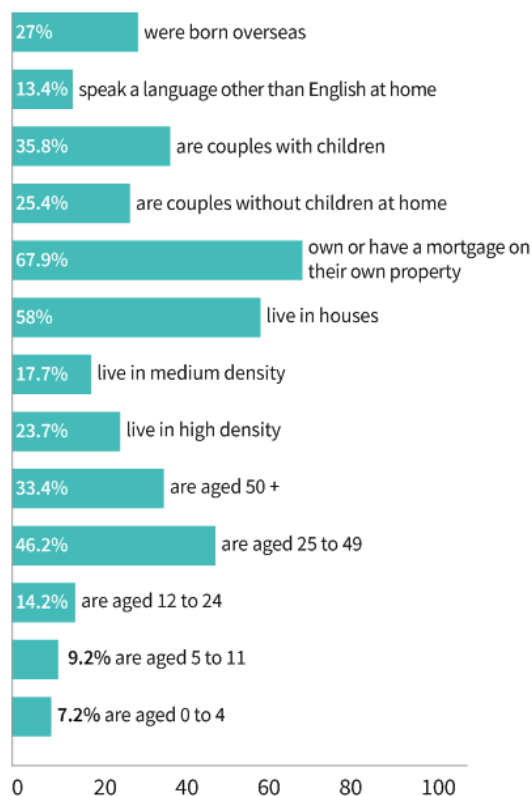
Customer Experience Strategy 2017 - 2023

WHAT WE HAVE LEARNED ABOUT OUR CUSTOMERS

During our research we discovered that, while our customers rated their overall customer experience as positive, there was room for improvement. Primarily, customers expect an informed, consistent and proactive service response across all interactions and communication channels, and for information and tools to deliver better experiences. Timely communication is considered critical as customers want to be kept informed of their issue. Looking ahead, customers want more self-service tools to monitor and manage their own access to Council information.

Customers differ

Our customers are a very diverse group. They are as diverse as they are numerous. While there are common needs and service attributes, customers also have specific needs that drive improved customer experience. A one size fits all approach does not work and more and more customers are seeking a personalised experience when they interact with us.



Customers want choice

Effective communication requires a consistent, proactive and seamless service experience across all interactions, with diverse service and communication channels for different customers.

Customers want information

Customers want knowledgeable employees who can either answer their question or direct them to the right person, and who are empowered to resolve issues. They also expect to be kept informed on the progress of their issue and their request to be resolved in a timely manner.

Phone, self-service technologies and mobility

While traditional methods of contact, such as face to face and telephone, remain the preferred method of contact, an increasing number of customers want to find more information themselves and to connect with us when it suits them. Customers expect self-service tools to be efficient, easy-to-use, and available 24/7 across multiple communication channels. They are increasingly expecting integrated portals that bundle all their interactions and information with Council. Integrating our suite of self-service products and optimising the website for mobile access will greatly improve the customer experience and reduce our cost per transaction to serve customers.

Our services

Our community has told us they want us to focus on maintenance of roads and footpaths, managing traffic, managing developments and the development application process, managing waterways and responding to their needs and requests. We must continue efforts in all service areas to meet expectations while also focusing on, consulting, informing and improving our services.

Personal satisfaction

Staff gain a huge amount of personal satisfaction from providing customers with a positive experience. We need to ensure we enable staff to provide this service level by having the right tools, training and support in place. When our people are properly supported and trained they are able and willing to provide an excellent experience to our customers.

MEET THE CUSTOMER

Customer personas assist in the development of customer focused processes and programs by encouraging us to think about specific customers their behaviours, emotions, attributes, motivations and goals. Having a customer focus is about setting customer outcomes at the beginning of a task, process or project, by considering customer needs when developing options, assessing the customer impact of each option and selecting a preferred option based on a balanced analysis of business, operational and customer requirements.

Our customer persona's each represent a different type of Council customer. They have been identified through demographic data, voice of customer responses and website analytics for the northern beaches and they reflect typical customers of council.



Sarah

Age: 52

Family status: single

Dependants: 3 - 2 away at University, 1 at home

Lives: Manly Vale, ratepayer

Career: Sales professional

Council services used by Sarah

Waste, roads, parks, beaches, off leash dog exercise areas, building compliance, libraries, Manly Food & Wine fair.

Sarah's last contact with Council

Sarah recently emailed Council with concerns about the ocean pool at Freshwater. She regularly swims there and felt it was not clean.

Sarah's attitude to Council

Sarah wants to be kept up to date about the status of her enquiry and for her issues to be fixed promptly. She believes our recreational areas need to be maintained to a high standard. Sarah regularly downloads talking book for use during her commute. She is concerned about how her children will afford to live in the area.



Steve

Age: 34

Family status: partnered

Dependants: 2 young children

Lives: owns house in Collaroy Plateau, rents and lives in Dee Why

Career: Landscaper

Council services regularly used by Steve

Waste, roads, parks, beaches, planning, childcare, libraries, pools.

Steve's last contact with Council

Steve recently lodged a development application for an extension to his 2 bedroom house that he currently rents out while he and his family live in a rented unit in Dee Why.

Steve's attitude to Council

Steve wants his development application to be processed quickly and to be kept up to date on its status. He wants to have personal contact with his assessing officer. He also wants the beaches and parks to be kept clean and clear of litter and for playgrounds to be improved and well maintained. Steve is tech savvy and wants to connect with council online.



Joan

Age: 76

Family status: partnered

Dependants: Carer to her partner who has a physical disability

Lives: Avalon, ratepayer

Career: retired teacher

Council services used by Joan

Waste, roads, parks, beaches, planning, libraries, bushland, community services.

Joan's last contact with Council

Joan wrote a letter to Council concerned about a fire hazard in her local reserve and has called about an abandoned car in her street.

Joan's attitude to Council

Joan wants up to date information about fire hazards and bush clearing. She also wants bush regeneration in her nearby reserve to be regularly undertaken. Joan is also concerned about increasing population and the impact it's having on density and liveability. Joan pays her rates by cash at the customer service centre.



Alex

Age: 17

Family status: single

Dependants: none

Lives: Frenchs Forest with parents

Career: student

Council services used by Alex

Beaches, roads, natural environment, parking, skating parks and new years celebrations.

Alex's last contact with Council

Alex called council on a Saturday about purchasing an extra parking permit. He recently attended the Manly office for JP services.

Alex's attitude to Council

Alex wants to purchase his parking permit over the phone or online.



Anne

Age: 29

Family status: partnered

Dependants: none

Lives: Rents at Chatswood, looking to purchase a property in the local area

Career: IT consultant

Council services used by Anne

Beaches, natural environment, parking, roads, waterways, events, night time economy.

Anne's last contact with Council

As a visitor to the area wanting to purchase a property Anne has phoned the call centre enquiring about various properties she has been interested in and has tried visiting council's website for the same information.

Anne's attitude to Council

As both Anne and her partner work full time in the city she wants to get information efficiently and would ideally like to do this online.

CUSTOMER EXPERIENCE DRIVERS

Our four drivers identified for an excellent customer experience are:

1. Consistency - deliver consistent services with integrity, accountability and common sense
2. Empowered staff - go above and beyond by taking ownership of issues and delivering positive experiences for our customers
3. Responsive - deliver tailored and responsive service that is inclusive, consistent, and effective and meets the changing and individual needs of our customers.
4. Information - trusted source of reliable and timely advice and information for customers.

Delivering improvements across each of the four customer experience drivers is how we enhance the customer experience and improve customer satisfaction.

Improving one customer service driver can improve customers' perception of another. For example, ensuring information for staff is correct and reliable makes staff feel more empowered and makes customers feel our services are more reliable.

DRIVER 1 - Consistency

We deliver consistent services with integrity, accountability and common sense.

Strategies to support this driver

- Provide consistent, friendly service and processes across Council
- Recognise that individual customers and their needs differ and treat every customer accordingly
- Use every customer interaction as an opportunity to create a positive image of Council.
- Continue to provide a high standard of customer service.
- Consider all types of customers and their needs in the delivery of our services.

How can we do it?

- Provide customer service training to all staff
- Provide platforms for sharing of knowledge among staff
- Encourage staff to take a flexible approach to customer issues
- Provide feedback channels for our customers so we can learn from their experiences
- Develop a Customer Service Charter with clear timeframes that details how customers can provide feedback
- Develop a customer service recognition program for staff displaying excellent customer service skills
- Target customer skills in all levels of recruitment.
- Use customer journey maps

Tools supporting this driver

- Knowledge management database
- Community satisfaction survey
- Request management with voice of customer feedback surveys
- Random telephone surveys
- Customer Relationship Management (CRM) system
- Customer Service Charter
- Performance management tool with customer service measures.

DRIVER 2 - Empowered staff

We go above and beyond for our customers by taking ownership of issues and delivering positive experiences.

Strategies to support this driver

- Provide the right tools and resources so we can do our jobs and make good decisions
- Recognition that spending time with customers is valuable
- Clear easy to understand delegations.

How can we do it?

- Monitor customer interactions and provide coaching to staff for improvement
- Provide feedback channels and opportunities for improvements for our staff so we can learn from their experiences
- Ensure Customer Service Charter has clear timeframes.
- All staff position descriptions require us to take ownership of any customers enquiry or contact.

Tools supporting this driver

- Quality assurance program
- Knowledge management database
- Staff survey
- Delegations manual
- Customer Service Charter
- Providing a range of interaction platforms.

DRIVER 3 - Responsive

We deliver tailored and responsive service that is inclusive, consistent, and effective and meets the changing and individual needs of our customers.

Strategies to support this driver

- Provide a range of inclusive and accessible channels including face to face, telephone, digital and print
- Provide robust systems that optimise information transfer between customers and all areas of Council
- Ask customers about our performance
- Proactive service improvement.

How can we do it?

- Ensure the customer's needs are considered in our Digital Transformation Strategy
- Use plain English in all our communications
- Provide tools for staff that give a holistic view of the customer
- Provide access for staff to Council's database of knowledge
- Regularly use voice of customer feedback
- Ensure Council's digital platforms are optimised for mobility
- Offer self-service options where possible
- Act on feedback from customers
- Use customer journey mapping
- Analyse complaint and compliment data
- Annual public reporting on our complaints, compliments and feedback.

Tools supporting this driver

- Council's website
- Customer relationship management (CRM) system
- Knowledge management database
- Complaint and compliment register
- Community satisfaction survey
- Mystery shopping.

DRIVER 4 - Information

We are a trusted source of reliable and timely advice and information for customers.

Strategies to support this driver

- Aim to provide the highest quality, innovative customer service
- Identify opportunities to improve processes and information and act upon them
- Ask our customers what services they want
- Include customers in building services
- Ask customers about our performance.

How can we do it?

- Ensure our external information is accurate
- Ensure our internal knowledge is up to date
- Use plain English in all our communications
- Ensure processes and procedures are designed around the needs and expectations of our customers
- Value each customer interaction as an opportunity to improve services and processes
- Use customer journey mapping.

Tools supporting this driver

- Council's website
- Staff intranet
- Knowledge management database
- Request management with voice of customer feedback surveys
- Customer relationship management (CRM) system
- Online services.



MEET THE STAFF

Our staff are crucial to providing a great customer experience. Their commitment to our corporate value of service is evident on a daily basis. We provide a vast array of services for our customers from child care and youth services, planning, road and infrastructure maintenance, libraries, art galleries and theatres, parks, reserves, beaches, pools and bushland.

We asked a few of our staff to tell us what they do in their jobs and how they help the customer according to our values.

Trust

because

being **open** brings out our **best**

Teamwork

because

working **together** delivers

Respect

because

valuing everyone is how we make a difference

Integrity

because

we are **proud** of doing what we say

Service

because

we **care** as custodians for the community

Leadership

because

everyone has a leading role



Bandana, Early Childhood Teacher

I provide care and education for children aged 0-6 years. I am the room leader in the 2-3 year age room and work with a team of 4 other educators and in partnership with the families within our room. I plan and program for the children's interests and developmental needs, using the family and fellow educators goals and inputs.

I give families of the centre information about their children on a daily basis while caring and educating the children and providing the environment that the children can use to grow to their full potential.

I often assist customers with information relating to other Council services as well as services offered by other community organisations.



Robert, Section 94 Coordinator

I am responsible for implementing, coordinating and managing development contributions plans for Council. These plans allow Council to levy payment of contributions for new development to fund the provision of infrastructure and services that will be required as a consequence of that development.

A large part of my job is helping customers understand the contributions plans and how they apply to their developments. This regularly involves working closely with Council's Land Release Team to effectively communicate all relevant aspects of the contributions plans to customers before, during and after their development process.



Theo, Technology Librarian

As Technology Librarian, I am responsible for managing digital content and improving resources and technology within the library. I do this by ensuring the digital content and technology provided by the library anticipates the educational, recreational and cultural needs of our diverse community. I also support and develop volunteers, staff and patrons to use that technology and work to ensure that our community has free access to high quality digital content. On a day-to-day basis I provide customer and reference services to our patrons.



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Craig, Customer Service Officer

I assist customers face to face or over the telephone in our Dee Why Customer Service Centre. Customers may need information relating to council services or services offered by other community organisations. The range of issues are very diverse and may include waste issues such as broken or missed bins, trees or street cleaning, development applications and planning matters and payments and applications.

The role is one I enjoy and find very rewarding as it provides lots of variety.



Sylwia, IT Support Officer

As an IT Support Officer I am the first point of call for any technology related issues for all council employees. I help by immediately assessing the problem and, when possible, resolving it via phone or remote login. I prioritise and log more complex issues to appropriate IT Officers and update my customers on resolution times.

My role is crucial in enabling staff at Council to do their jobs to assist customers of Council.



Owen, Reserves Supervisor

My role is to coordinate the maintenance and repair of commercial areas. These are high visibility areas for our customers and so require a great attention by council. This involves liaising with staff and contractors to ensure garden maintenance, pavement restorations, cleansing and street furniture installations are completed. The goal of my team is to keep these areas clean and safe for the community and ensure the issues raised by customers are fully understood and completed in a timely manner.



Josh, Senior Beach Inspector/Professional Lifeguard

My job is ensuring public safety and satisfaction with Council's beaches and beach reserves by monitoring and managing the ocean and beach reserves. My team is a very visible representative of Northern Beaches Council. People come to the beach and we hope to help them have an enjoyable day.

We provide information to customers about a range of issues such as swimming inside the flags, ocean conditions and weather, bus times and routes, accommodation options, equipment rental, food recommendations, local activities, tours and directions.

We also assist in stressful situations by providing first aid, rescuing people in trouble, helping with lost children, assisting with stolen property and lost car keys. Sometimes a local resident just wants a few minutes to ask a few questions or have a chat. From picking up rubbish to helping a school group get the most from their day on the beach, my role is varied and changes with every interaction I have with the public.



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MEASURING OUR PROGRESS

Measuring the progress of our customer experience drivers will ensure they provide an evidence base for continuing to drive a customer focus. Voice of the customer and customer journeys provide combined insights from a number of sources including research, surveys, feedback and complaints.

Listed below are measure to help us make sure we are achieving on each customer experience driver.



Customer Experience Strategy 2017 - 2023

Customer Experience Driver	Measures of Success
CONSISTENCY: We deliver consistent services with integrity, accountability and common sense	<ul style="list-style-type: none"> • All staff undergo customer service training • Customer service measures are in our performance management tool for all levels of the organisation • Our Customer Service Charter is easily accessible in both hard and soft copy for staff and customers • All staff meet Council's phone and email etiquette standards • Knowledge management database in place and regularly amended • Customer service metrics and mystery shopping identify opportunities for improvement are identified • Customer champions recognition program in place.
EMPOWERED STAFF: We go above and beyond for our customers by taking ownership of issues and delivering positive experiences	<ul style="list-style-type: none"> • Annual staff survey to measure staff empowerment • Monthly measurements (where possible) of Customer Service Charter timeframes • Quality assurance program for the call centre is in place • Knowledge management database in place and regularly checked for accuracy • Delegation manual is easily accessible for staff • First contact resolution metrics for the call centre are regularly reviewed and analysed for improvement opportunities.
RESPONSIVE: We deliver tailored and responsive service that is inclusive, consistent, and effective and meets the changing and individual needs of our customers.	<ul style="list-style-type: none"> • Better practice formal complaint handling process in place • Regular reporting and root cause analysis of formal complaint metrics • Regular reporting of formal complaint and compliment data to Executive Management Team, Risk Committee and Leadership Group • Internal and external communication standards, including use of plain English in place • Customer experience monitoring is inclusive and scored across the organisation and reported to Executive Management Team and Leadership Group.
INFORMATION: We are a trusted source of reliable and timely advice and information for customers	<ul style="list-style-type: none"> • All staff undergo customer service training • Website satisfaction score implemented and used to improve our website • Intranet implemented with increasing usage by staff • Quality assurance program for the customer service team • CRM system delivering on intended benefits • Knowledge management database in place and regularly checked for accuracy • Request management system implemented and measured for satisfaction by customers • Increase in number of services offered online • Annual audit for the use of plain English in line with our internal and external communication standards as per the customer charter.



#	Development Control Plan	Control	Amendments
1	Pittwater 21 DCP 2015 (Amendment 19)	Contents Table	Update Contents Table
2	Pittwater 21 DCP 2015 (Amendment 19)	Throughout	Update Control Numbering to ensure that it is sequential given the deletion of controls
3	Pittwater 21 DCP 2015 (Amendment 19)	Throughout	Amend any reference from Appendix 8 Flood Risk Management Policy for Development in Pittwater to Flood Risk Management Policy as the policy has been superseded by an integrated Northern Beaches Council policy on flood prone land
4	Pittwater 21 DCP 2015 (Amendment 19)	Throughout	Amend any reference from Appendix 15 Flood Emergency Response Planning for Development in Pittwater Policy to Flood Emergency Response Planning for Development in Pittwater Policy as the policy has been removed from the Development Control Plan to maintain consistency with the revised Flood Prone Land clause
5	Pittwater 21 DCP 2015 (Amendment 19)	1.9 Definitions	<p><i>Insert</i></p> <p>Adequate Warning Systems, Signage and Exits is where the following is provided:</p> <p>(a) an audible and visual alarm system which alerts occupants to the need to evacuate, sufficiently prior to likely inundation to allow for the safe evacuation of pedestrians and vehicles;</p> <p>(b) signage to identify the appropriate procedure and route to evacuate; and</p> <p>(c) exits which are located such that pedestrians evacuating any location during any flood do not have to travel through deeper water to reach a place of refuge above the PMF flood event, away from the enclosed car parking.</p> <p>Adverse Impacts (for the purposes of the Flood Prone Land clause only) means, the proposed development:</p> <ul style="list-style-type: none"> • Will result in less than 0.02m increase in the 1% AEP • Will result in less than a 0.05m increase in the PMF • Will result less than a 10% increase in PMF peak velocity • Will have no loss in flood storage or flood way in the 1% AEP <p>Alterations and Additions (for the purposes of the Flood Prone Land clause only) means:</p> <p>(a) In the case of residential development, a one-off addition to, or alteration of an existing</p>

<p>dwelling and/or the construction of a new garage or development ancillary to residential development where the new work results in an additional ground floor area of less than 30m² or an increase of less than 10% of the ground floor area (whichever is lesser); or</p>	<p>(b) In the case of non-residential development, a one-off addition to, or alteration of, an existing building of not more than 100m² or 10% of the ground floor area (whichever is the lesser).</p>	<p>Annual Exceedance Probability (AEP) means the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. The 1% AEP or 1:100 AEP means there is a 1 in 100 probability of the corresponding flood discharge occurring in any given year.</p>	<p>Australian Height Datum (AHD) is a common national plain of level corresponding approximately to mean sea level.</p>	<p>Average Recurrence Interval (ARI) is an alternative to AEP for expressing the likelihood of occurrence of a flood event. It means the long-term average number of years between the occurrences of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 100 year ARI flood event have a 1 in 100 probability of occurring in any given year.</p>	<p>Compensatory Works (for the purposes of the Flood Prone Land clause only) refers to earthworks where material is excavated (or "cut") from one location in the floodplain and placed (or "filled") at another location in the floodplain, with no net importation of fill material, such that the volume available for storage of flood waters is not altered for all floods and flood behaviour is not impacted.</p>	<p>Effective warning time is the time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The effective warning time is typically used to move equipment or stock, raise furniture, evacuate people and transport their possessions.</p>	<p>Enclosed car parking means car parking enclosed on all sides, which is potentially subject to rapid inundation, which in turn consequently increases risk to human life and property (such as basement parking, enclosed garages or bunded car parking areas).</p>

		<p>Flood affected properties means properties on land susceptible to overland flooding or mainstream flooding up to the Probable Maximum Flood.</p> <p>Flood awareness is an appreciation of the likely effects of flooding and knowledge of the relevant flood warning and evacuation procedures.</p> <p>Flood compatible buildings includes buildings designed to withstand flood damages such as:</p> <ul style="list-style-type: none"> (a) Collapse as a result of water pressure; (b) Displacement of structures off their foundations as a result of buoyancy forces; (c) Weakening, distortion or failure as a result of saturation. <p>Components, materials, connections and services required to achieve flood compatibility are outlined in the <i>Australian Building Codes Board - Construction of Buildings in Flood Hazard Areas, 2012</i></p> <p>Flood Hazard – Flood Hazard is a term used to determine the safety of people and property and is based on a combination of flood depth (above ground level) and flood velocity for a particular sized flood. Flood Hazard is classified as either Low Hazard or High Hazard.</p> <p>In High Flood Hazard areas, there is a possible danger to personal safety, able-bodied adults would have difficulty wading and there is the potential for significant structural damage to buildings. In Low Flood Hazard areas, able-bodied adults would have little difficulty wading and nuisance damage to some structures would be possible.</p> <p>The method for determining Provisional Low and High Hazard Categories is outlined in the NSW Government's Floodplain Development Manual (2005) (the Manual).</p> <p>Flood Management Report means a technical report of adequate qualitative and quantitative detail addressing the management of flood risk, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a Structural Engineer (where necessary) to satisfy the requirements as set out by this Plan.</p> <p>Flood Planning Area (FPA): The <i>Flood Planning Area</i> is the area below the Flood Planning Level as determined by an engineering professional in a Flood Study undertaken in accordance with the Floodplain Development Manual.</p> <p>Flood Planning Levels (FPL) has the same meaning as provided in the Manly LEP 2013,</p>

<p>Warringah LEP 2011 and Pittwater LEP 2014.</p>	<p>A reduced freeboard will be considered on its merits for properties impacted by peak flood depths less than 0.3m and velocity depths less than 0.3m²/s. The reduced freeboard must be appropriately justified in a Flood Management Report prepared by a suitably qualified professional.</p> <p>Flood prone land (being synonymous with flood liable and floodplain) is the area of land that is subject to inundation by the <i>probable maximum flood</i> (PMF).</p> <p>Flood Proofing – Dry means measures that protect a building from the entry of floodwaters by sealing a building's exterior walls and other floodwater entry points.</p> <p>Flood Proofing – Wet means a combination of measures incorporated into the design, construction and/or alteration of buildings, structures and surrounds, to enable a building or structure to withstand forces due to floodwater ingress and passage, whilst remaining structurally sound, to mitigate flood damages.</p> <p>Flood Risk Emergency Assessment Report means a technical assessment of adequate qualitative and quantitative detail addressing the management of risk to life, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a Structural Engineer (where necessary) to satisfy the requirements as set out by the control and policy.</p> <p>Flood Risk Precinct (FRP) refers to the division of the floodplain on the basis of the level of expected risk to persons and property due to flooding. In this plan the floodplain is divided into the Low, Medium and High flood risk precincts.</p> <p>Low Flood Risk precinct means all <i>flood prone land</i> not identified within the High or Medium flood risk precincts.</p> <p>Medium Flood Risk precinct means all <i>flood prone land</i> that is (a) within the 1% AEP Flood Planning Area; and (b) is not within the high flood risk precinct.</p> <p>High Flood Risk precinct means all <i>flood prone land</i> (a) within the 1% AEP Flood Planning Area; and (b) is either subject to a high hydraulic hazard, within the floodway or subject to significant evacuation difficulties (H5 and or H6 Life Hazard</p>

Classification).	<p>Flood Risk Precinct Maps means maps held by Council identifying the boundaries of the <i>Flood Risk Precincts</i> produced through a publicly available <i>Flood Study</i> or <i>Floodplain Risk Management Plan</i>.</p> <p>Flood Storage Area means those parts of the floodplain that are not part of the <i>floodway</i>.</p> <p>Floodplain Development Manual (FDM) refers to the document dated April 2005, published by the New South Wales Government and entitled "Floodplain Development Manual: the management of flood liable land".</p> <p>Floodplain Risk Management Plan (FRMP) means a plan prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMP's and Floodplain Management Plans, which all have the status of FRMP's for the purposes of this Plan.</p> <p>Floodplain Risk Management Study (FRMS) means a study prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMS's and Floodplain Management Studies, which all have the status of FRMS's for the purposes of this Plan.</p> <p>Floodway is the area of the floodplain where a significant discharge of water occurs during floods and is often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.</p> <p>Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for a FPL is actually provided. It is a factor of safety typically used in relation to the setting of flood levels, levee crest levels, etc. Freeboard is included in the <i>flood planning level</i> (see definition).</p> <p>Habitable floor area (for the purposes of the Flood Prone Land clause only) means: (a) In a residential situation: any floor containing a room or rooms used or capable of</p>

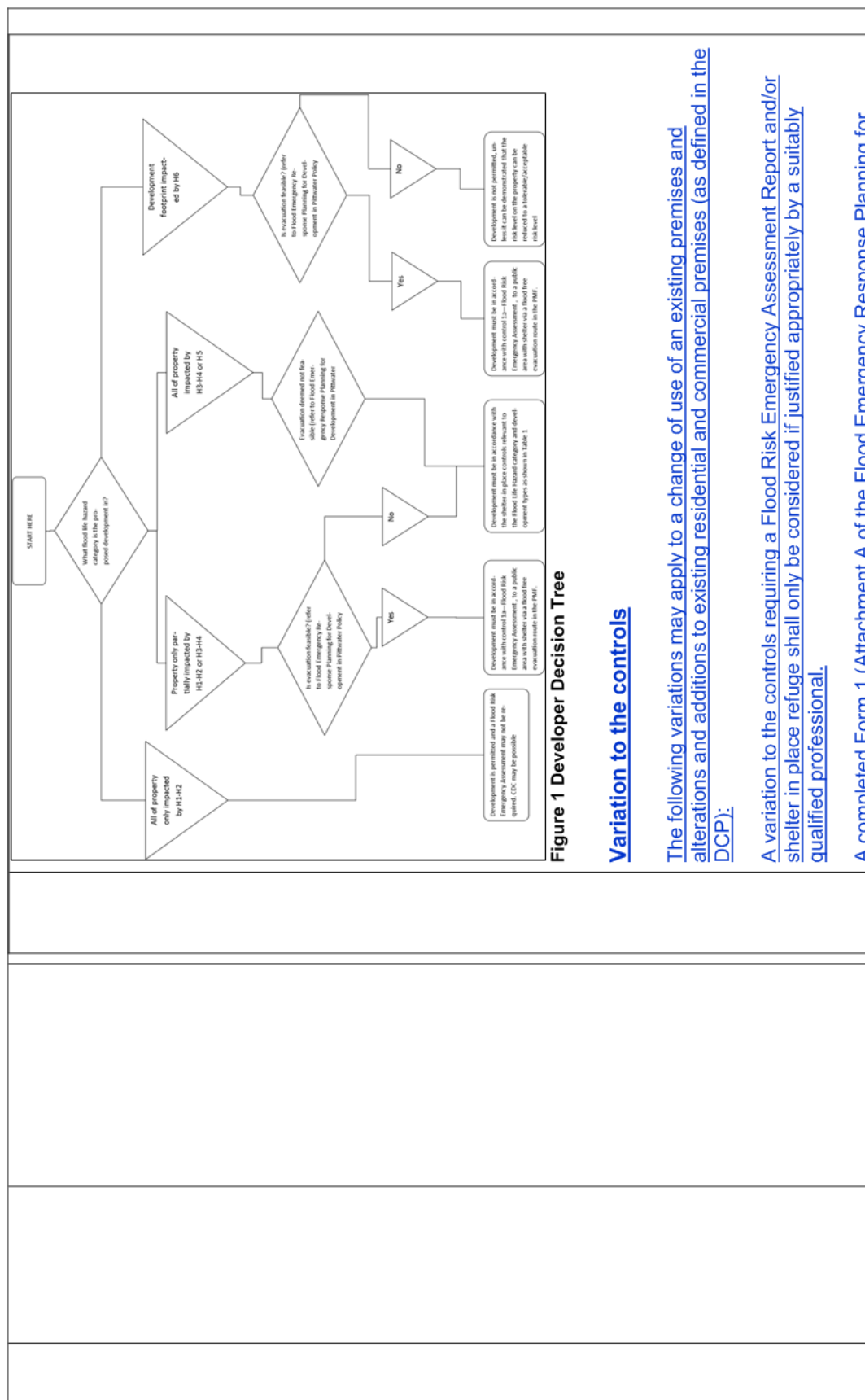
	<p>being adapted for use for residential purposes, such as a bedroom, living room, study, dining room, kitchen, bathroom, laundry, toilet but excluding any floor used solely for the purposes of car parking or storage;</p> <p>(b) In a non-residential situation: an area used for the regular activities of the building, including but not limited to offices, work areas, staff kitchens, staff lounge room, reception area or for storage of possessions susceptible to flood damage in the event of a flood.</p> <p>Note: Separate considerations are specified for the car parking area of a development irrespective of the land use with which it is associated.</p> <p>Hazard is a source of potential harm or a situation with a potential to cause loss. In relation to this Plan, the hazard is flooding which has the potential to cause harm or loss to the community.</p> <p>Hydraulic Engineer (for the purposes of the Flood Prone Land clause only) - A civil or environmental engineer who is a registered professional engineer with chartered professional status (CP Eng) specialising in the field of hydrology/hydraulics, as it applies to floodplain management, and has an appropriate level of professional indemnity insurance.</p> <p>Hydraulic hazard is the hazard as determined by the provisional criteria outlined in the FDM in a 1% AEP flood event.</p> <p>Local overland flooding means inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.</p> <p>Local Stormwater (for the purposes of the Flood Prone Land clause only) - is defined as land that has a 1% AEP peak flood depth between 0.05m and 0.15m with a velocity depth between 0.025m²/s and 0.3m²/s.</p> <p>Mainstream Flooding (for the purposes of the Flood Prone Land clause only) - inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.</p> <p>Minimise Risk - It is recognised that, due to the many complex factors that can affect a site within the floodplain, the flood risk for a site and/or development cannot be completely removed. It is, however, essential that risk be minimised to at least that which could be reasonably anticipated by the community in everyday life. Further, landowners should be</p>

	<p>made aware of the reasonable and practical measures available to them to minimise risk as far as possible. Hence where the Policy requires that “an acceptable level of risk” be achieved or where measures are to be taken to “minimise risk” it refers to the process of risk reduction. The Policy recognises that development within a risk-managed floodplain does not lead to complete risk removal as this is not meaningfully achievable.</p> <p>Probable maximum flood (PMF) is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation.</p> <p>Probable maximum precipitation (PMP) is the greatest depth of precipitation for a given duration meteorologically possible over a given size storm area at a particular location at a particular time of the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to the estimation of the probable maximum flood.</p> <p>Probability is a statistical measure of the expected chance of an event occurring (see AEP).</p> <p>Reliable access during a flood means the ability for people to safely evacuate an area subject to flooding, having regard to the depth and velocity of flood waters and the suitability of the evacuation route, without a need to travel through areas where water depths increase.</p> <p>Risk means the chance of something happening that will have an impact. It is measured in terms of consequences and probability (likelihood). In the context of this plan, it is the likelihood of consequences arising from the interaction of floods, communities and the environment.</p> <p>Structural Engineer (for the purposes of the Flood Prone Land clause only) - A structural engineer who is a registered professional with structural engineering as a core competency, and has an appropriate level of professional indemnity insurance.</p> <p>Suitably Qualified Professional means a registered professional engineer specialising in the field of hydrology/hydraulics, as it applies to floodplain management—or otherwise qualified professional as determined at the sole discretion of Council—who is covered by an appropriate level of professional indemnity insurance.</p>

				Survey plan is a plan prepared by a registered surveyor which shows the information required for the assessment of an application in accordance with the provisions of this Plan.	
6	Pittwater 21 DCP 2015 (Amendment 19)	B3.11 Flood Hazard - Flood Category 1 - Low Hazard - Residential Development: Dwelling House, Secondary Dwelling and Dual Occupancy	Delete development control		
7	Pittwater 21 DCP 2015 (Amendment 19)	B3.12 Flood Hazard - Flood Category 1 - Low Hazard - Residential Development: Multi Unit Housing Development	Delete development control		
8	Pittwater 21 DCP 2015 (Amendment 19)	B3.13 Flood Hazard - Flood Category 1 - Low Hazard - Shop Top Housing, Business and Light Industrial Development	Delete development control		
9	Pittwater 21 DCP 2015 (Amendment 19)	B3.14 Flood Hazard - Flood Category 1 - Low Hazard - Other	Delete development control		
10	Pittwater 21 DCP 2015 (Amendment 19)	B3.15 Flood Hazard - Flood Category 1 - Low Hazard - Land Subdivision	Delete development control		
11	Pittwater 21 DCP 2015	B3.16 Flood Hazard - Flood Category 1 -	Delete development control		

	(Amendment 19)	High Hazard - Residential Development: Dwelling House, Secondary Dwelling and Dual Occupancy	
12	Pittwater 21 DCP 2015 (Amendment 19)	B3.17 Flood Hazard - Flood Category 1 - High Hazard - Residential Development: Multi Unit Housing Development	Delete development control
13	Pittwater 21 DCP 2015 (Amendment 19)	B3.18 Flood Hazard - Flood Category 1 - High Hazard - Shop Top Housing, Business and Light Industrial Development	Delete development control
14	Pittwater 21 DCP 2015 (Amendment 19)	B3.19 Flood Hazard - Flood Category 1 - High Hazard - Other Development	Delete development control
15	Pittwater 21 DCP 2015 (Amendment 19)	B3.20 Flood Hazard - Flood Category 1 - High Hazard - Land Subdivision	Delete development control
16	Pittwater 21 DCP 2015 (Amendment 19)	B3.21 Flood Hazard - Flood Category 2 - All Development except Dwelling House, Secondary Dwelling, Dual Occupancy, and Multi-Unit Housing Development	Delete development control
17	Pittwater 21	B3.22 Flood Hazard -	Delete development control

	DCP 2015 (Amendment 19)	Flood Category 3 – Overland Flow Path - Major	
18	Pittwater 21 DCP 2015 (Amendment 19)	B3.24 Flood Hazard - Flood Category 3 – Overland Flow Path – Minor	Delete development control
19	Pittwater 21 DCP 2015 (Amendment 19)	B3.25 Flood Hazard – Flood Emergency Response planning	<div>Amend the development control as follows:<div><div>Insert</div><div>Land to which this control applies Land identified on the Flood Life Hazard Category Maps as H3-4, H5 and H6 in a Probable Maximum Flood event. Class 10 classified buildings and structures (as defined in the Building Codes of Australia) are excluded from this control.</div></div><div><div>Insert</div><div>Developer Decision Tree The decision tree shown in Figure 1 has been prepared to assist developers in determining whether or not flood risk to life development controls apply to their development and assist in the application of the development matrix shown in figure 1.</div></div></div>



			<p><u>Development in Pittwater Policy</u>), must also be submitted with the development application.</p> <p>A section 88b instrument (or similar) will be required to be placed on the lot that outlines that the property has no 'shelter-in-place refuge' and that there is a risk of persons being inundated by floodwaters with no place to seek refuge on the lot.</p> <p>Advisory Notes</p> <p>For additional information, applicants are referred to Flood Emergency Response Planning for Development in Pittwater Policy of this DCP.</p> <p><u>Obtaining Flood Life Hazard Categories</u></p> <p>To apply this control the Flood Life Hazard Categories on the parcel of land/lot must first be established by:</p> <p>Obtaining the Flood Life Hazard Category Map from Council through the Flood Information Request service;</p>	
20	Pittwater 21 DCP 2015 (Amendment 19)	Appendix 8 Flood Risk Management Policy for Development in Pittwater	Delete development control	
21	Pittwater 21 DCP 2015 (Amendment 19)	Appendix 15 Flood Emergency Response Planning for Development in Pittwater Policy	Delete development control	
22	Pittwater 21 DCP 2015 (Amendment 19)	New Control	Insert Attachment 3 as a new control B3.11 Flood Prone Land	
23	Warringah DCP 2011	A8 – Interpretation	Delete the following definitions:	

			<p>Concessional Development Alterations and additions to residential, industrial and commercial buildings.</p> <p>Essential services and infrastructure for the purposes of flood management include all services and infrastructure that aid emergency response and recovery functions during and after a flood event, such as evacuation centres and routes, hospitals and major utility facilities.</p> <p>Flood Relatively high stream flow which overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flooding associated with major drainage before entering a watercourse, and/or coastal inundation resulting from super-elevated sea levels and/or waves overtopping coastline defences excluding tsunamis.</p> <p>Flood Evacuation Plan A plan referring to the arrangements for dealing with the impact of flooding on a particular business or household.</p> <p>Flood Planning Levels (FPL) are the combinations of flood levels derived from significant historical flood events or floods of specific AEP's and freeboards selected for floodplain risk management purposes, as determined in management studies and incorporated in management plans.</p> <p>Flood Prone Land is land that is susceptible to flooding by the PMF event.</p> <p>Floodplain Area of land which is subject to inundation by floods up to the probable maximum flood event, i.e. flood prone land.</p> <p>Floodway Those areas of the floodplain where a significant discharge of water occurs during floods. They are often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.</p> <p>Flood prone land Land susceptible to flooding by the PMF event.</p> <p>High hazard Flood conditions that pose a possible danger to personal safety; evacuation by trucks difficult; able-bodied adults would have difficulty wading to safety; potential for significant structural damage to</p>
Delete			

24	Warringah DCP 2011	A8 – Interpretation	<p>buildings.</p> <p>Low hazard Flood conditions such that should it be necessary, people and their possessions could be evacuated by trucks; able-bodied adults would have little difficulty wading to safety.</p> <p>Probable maximum flood (PMF) the PMF is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation, and where applicable, snow melt, coupled with the worst flood producing catchment conditions. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain. The extent, nature and potential consequences of flooding associated with a range of events rarer than the flood used for designing mitigation works and controlling development, up to and including the PMF event should be addressed in a floodplain risk management study.</p> <p>Shelter in place for the purposes of flood management this is a process for taking immediate shelter in a location readily accessible to the affected individual. Sheltering in place is generally only used for a short period of time (several hours).</p> <p>Vulnerable Development relates to the number of people needing simultaneous evacuation or who are limited either in movement or their ability to evacuate. Vulnerable development includes Recreational facilities (major) and (indoor), aged care facilities, independent living units for older people, childcare centres and schools, community centres and buildings</p>	<p>Adequate Warning Systems, Signage and Exits is where the following is provided:</p> <p>(a) an audible and visual alarm system which alerts occupants to the need to evacuate, sufficiently prior to likely inundation to allow for the safe evacuation of pedestrians and vehicles;</p> <p>(b) signage to identify the appropriate procedure and route to evacuate; and</p> <p>(c) exits which are located such that pedestrians evacuating any location during any flood do not have to travel through deeper water to reach a place of refuge above the PMF flood event, away from the enclosed car parking.</p> <p>Adverse Impacts (for the purposes of the Flood Prone Land clause only) means, the proposed development:</p> <ul style="list-style-type: none"> • Will result in less than 0.02m increase in the 1% AEP • Will result in less than a 0.05m increase in the PMF
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<ul style="list-style-type: none"> • Will result less than a 10% increase in PMF peak velocity • Will have no loss in flood storage or flood way in the 1% AEP <p>Alterations and Additions (for the purposes of the Flood Prone Land clause only) means:</p> <p>(a) In the case of residential development, a one-off addition to, or alteration of an existing dwelling and/or the construction of a new garage or development ancillary to residential development where the new work results in an additional ground floor area of less than 30m² or an increase of less than 10% of the ground floor area (whichever is lesser); or</p> <p>(b) In the case of non-residential development, a one-off addition to, or alteration of, an existing building of not more than 100m² or 10% of the ground floor area (whichever is the lesser).</p> <p>Annual Exceedance Probability (AEP) means the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. The 1% AEP or 1:100 AEP means there is a 1 in 100 probability of the corresponding flood discharge occurring in any given year.</p> <p>Australian Height Datum (AHD) is a common national plain of level corresponding approximately to mean sea level.</p> <p>Average Recurrence Interval (ARI) is an alternative to AEP for expressing the likelihood of occurrence of a flood event. It means the long-term average number of years between the occurrences of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 100 year ARI flood event have a 1 in 100 probability of occurring in any given year.</p> <p>Compensatory Works (for the purposes of the Flood Prone Land clause only) refers to earthworks where material is excavated (or "cut") from one location in the floodplain and placed (or "filled") at another location in the floodplain, with no net importation of fill material, such that the volume available for storage of flood waters is not altered for all floods and flood behaviour is not impacted.</p> <p>Effective warning time is the time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The effective warning time is typically used to move equipment or stock, raise furniture,</p>	

	<p>evacuate people and transport their possessions.</p> <p>Enclosed car parking means car parking enclosed on all sides, which is potentially subject to rapid inundation, which in turn consequently increases risk to human life and property (such as basement parking, enclosed garages or bunded car parking areas).</p> <p>Flood affected properties means properties on land susceptible to overland flooding or mainstream flooding up to the Probable Maximum Flood.</p> <p>Flood awareness is an appreciation of the likely effects of flooding and knowledge of the relevant flood warning and evacuation procedures.</p> <p>Flood compatible buildings includes buildings designed to withstand flood damages such as:</p> <ul style="list-style-type: none"> (a) Collapse as a result of water pressure; (b) Displacement of structures off their foundations as a result of buoyancy forces; (c) Weakening, distortion or failure as a result of saturation. <p>Components, materials, connections and services required to achieve flood compatibility are outlined in the <i>Australian Building Codes Board - Construction of Buildings in Flood Hazard Areas, 2012</i></p> <p>Flood Hazard – Flood Hazard is a term used to determine the safety of people and property and is based on a combination of flood depth (above ground level) and flood velocity for a particular sized flood. Flood Hazard is classified as either Low Hazard or High Hazard.</p> <p>In High Flood Hazard areas, there is a possible danger to personal safety, able-bodied adults would have difficulty wading and there is the potential for significant structural damage to buildings. In Low Flood Hazard areas, able-bodied adults would have little difficulty wading and nuisance damage to some structures would be possible.</p> <p>The method for determining Provisional Low and High Hazard Categories is outlined in the NSW Government's Floodplain Development Manual (2005) (the Manual).</p> <p>Flood Management Report means a technical report of adequate qualitative and quantitative detail addressing the management of flood risk, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a</p>

	<p>Structural Engineer (where necessary) to satisfy the requirements as set out by this Plan.</p> <p>Flood Planning Area (FPA): The <i>Flood Planning Area</i> is the area below the Flood Planning Level as determined by an engineering professional in a Flood Study undertaken in accordance with the Floodplain Development Manual.</p> <p>Flood Planning Levels (FPL) has the same meaning as provided in the Manly LEP 2013, Warringah LEP 2011 and Pittwater LEP 2014.</p> <p>A reduced freeboard will be considered on its merits for properties impacted by peak flood depths less than 0.3m and velocity depths less than 0.3m²/s. The reduced freeboard must be appropriately justified in a Flood Management Report prepared by a suitably qualified professional.</p> <p>Flood prone land (being synonymous with flood liable and floodplain) is the area of land that is subject to inundation by the <i>probable maximum flood</i> (PMF).</p> <p>Flood Proofing – Dry means measures that protect a building from the entry of floodwaters by sealing a building's exterior walls and other floodwater entry points.</p> <p>Flood Proofing – Wet means a combination of measures incorporated into the design, construction and/or alteration of buildings, structures and surrounds, to enable a building or structure to withstand forces due to floodwater ingress and passage, whilst remaining structurally sound, to mitigate flood damages.</p> <p>Flood Risk Emergency Assessment Report means a technical assessment of adequate qualitative and quantitative detail addressing the management of risk to life, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a Structural Engineer (where necessary) to satisfy the requirements as set out by the control and policy.</p> <p>Flood Risk Precinct (FRP) refers to the division of the floodplain on the basis of the level of expected risk to persons and property due to flooding. In this plan the floodplain is divided into the Low, Medium and High flood risk precincts.</p> <p>Low Flood Risk precinct means all <i>flood prone land</i> not identified within the High</p>

	<p>or Medium flood risk precincts.</p> <p>Medium Flood Risk precinct means all <i>flood prone land</i> that is (a) within the 1% AEP Flood Planning Area; and (b) is not within the high flood risk precinct.</p> <p>High Flood Risk precinct means all <i>flood prone land</i> (a) within the 1% AEP Flood Planning Area; and (b) is either subject to a high hydraulic hazard, within the floodway or subject to significant evacuation difficulties (H5 and or H6 Life Hazard Classification).</p> <p>Flood Risk Precinct Maps means maps held by Council identifying the boundaries of the <i>Flood Risk Precincts</i> produced through a publicly available <i>Flood Study</i> or <i>Floodplain Risk Management Plan</i>.</p> <p>Flood Storage Area means those parts of the floodplain that are not part of the <i>floodway</i>.</p> <p>Floodplain Development Manual (FDM) refers to the document dated April 2005, published by the New South Wales Government and entitled "Floodplain Development Manual: the management of flood liable land".</p> <p>Floodplain Risk Management Plan (FRMP) means a plan prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMP's and Floodplain Management Plans, which all have the status of FRMP's for the purposes of this Plan.</p> <p>Floodplain Risk Management Study (FRMS) means a study prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMS's and Floodplain Management Studies, which all have the status of FRMS's for the purposes of this Plan.</p> <p>Floodway is the area of the floodplain where a significant discharge of water occurs during floods and is often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a</p>			
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		<p>significant increase in flood levels.</p> <p>Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for a FPL is actually provided. It is a factor of safety typically used in relation to the setting of flood levels, levee crest levels, etc. Freeboard is included in the <i>flood planning level</i> (see definition).</p> <p>Habitable floor area (for the purposes of the Flood Prone Land clause only) means:</p> <p>(a) In a residential situation: any floor containing a room or rooms used or capable of being adapted for use for residential purposes, such as a bedroom, living room, study, dining room, kitchen, bathroom, laundry, toilet but excluding any floor used solely for the purposes of car parking or storage;</p> <p>(b) In a non-residential situation: an area used for the regular activities of the building, including but not limited to offices, work areas, staff kitchens, staff lounge room, reception area or for storage of possessions susceptible to flood damage in the event of a flood.</p> <p>Note: Separate considerations are specified for the car parking area of a development irrespective of the land use with which it is associated.</p> <p>Hazard is a source of potential harm or a situation with a potential to cause loss. In relation to this Plan, the hazard is flooding which has the potential to cause harm or loss to the community.</p> <p>Hydraulic Engineer (for the purposes of the Flood Prone Land clause only) - A civil or environmental engineer who is a registered professional engineer with chartered professional status (CP Eng) specialising in the field of hydrology/hydraulics, as it applies to floodplain management, and has an appropriate level of professional indemnity insurance.</p> <p>Hydraulic hazard is the hazard as determined by the provisional criteria outlined in the FDM in a 1% AEP flood event.</p> <p>Local overland flooding means inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.</p> <p>Local Stormwater (for the purposes of the Flood Prone Land clause only) - is defined as land that has a 1% AEP peak flood depth between 0.05m and 0.15m with a velocity depth</p>

	<p>between 0.025m²/s and 0.3m²/s.</p> <p>Mainstream Flooding (for the purposes of the Flood Prone Land clause only) - inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.</p> <p>Minimise Risk - It is recognised that, due to the many complex factors that can affect a site within the floodplain, the flood risk for a site and/or development cannot be completely removed. It is, however, essential that risk be minimised to at least that which could be reasonably anticipated by the community in everyday life. Further, landowners should be made aware of the reasonable and practical measures available to them to minimise risk as far as possible. Hence where the Policy requires that "an acceptable level of risk" be achieved or where measures are to be taken to "minimise risk" it refers to the process of risk reduction. The Policy recognises that development within a risk-managed floodplain does not lead to complete risk removal as this is not meaningfully achievable.</p> <p>Probable maximum flood (PMF) is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation.</p> <p>Probable maximum precipitation (PMP) is the greatest depth of precipitation for a given duration meteorologically possible over a given size storm area at a particular location at a particular time of the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to the estimation of the probable maximum flood.</p> <p>Probability is a statistical measure of the expected chance of an event occurring (see AEP).</p> <p>Reliable access during a flood means the ability for people to safely evacuate an area subject to flooding, having regard to the depth and velocity of flood waters and the suitability of the evacuation route, without a need to travel through areas where water depths increase.</p> <p>Risk means the chance of something happening that will have an impact. It is measured in terms of consequences and probability (likelihood). In the context of this plan, it is the likelihood of consequences arising from the interaction of floods, communities and the environment.</p>

				<p>Structural Engineer (for the purposes of the Flood Prone Land clause only) - A structural engineer who is a registered professional with structural engineering as a core competency, and has an appropriate level of professional indemnity insurance.</p> <p>Suitably Qualified Professional means a registered professional engineer specialising in the field of hydrology/hydraulics, as it applies to floodplain management—or otherwise qualified professional as determined at the sole discretion of Council—who is covered by an appropriate level of professional indemnity insurance.</p> <p>Survey plan is a plan prepared by a registered surveyor which shows the information required for the assessment of an application in accordance with the provisions of this Plan.</p>
25	Warringah DCP 2011	Throughout	Update Control Numbering to ensure that it is sequential given the deletion of controls	
26	Warringah DCP 2011	E11 – Flood Prone Land	Delete development control	
27	Warringah DCP 2011	Maps	Delete the following maps: <ul style="list-style-type: none">• High Flood Risk Planning Precinct• Medium Flood Risk Planning Precinct• Low Flood Risk Planning Precinct	
28	Warringah DCP 2011	New Control	Insert Attachment 3 as a new control E11 Flood Prone Land	
29	Manly DCP 2013 (Amendment 8)	Contents Table	Update Contents Table	
30	Manly DCP 2013 (Amendment 8)	Throughout	Update Control Numbering to ensure that it is sequential given the deletion of controls	
31	Manly DCP 2013 (Amendment 8)	1.3 – Relationship to other Plans and Policies	Amend Control as follows: Delete <ul style="list-style-type: none">• Manly Lagoon Flood Study 2013 and Interim Policy – Flood Prone Lands 2013: Administrative Guidelines for Development and Use of Land within the Flood Planning Level Area:	

32	Manly DCP 2013 (Amendment 8)	5.4.3 – Flood Control Lots	Delete Development Control	
33	Manly DCP 2013 (Amendment 8)	New Control	Insert Attachment 3 as a new control E11 Flood Prone Land	
34	Manly DCP 2013 (Amendment 8)	Dictionary	Insert	<p>Adequate Warning Systems, Signage and Exits is where the following is provided:</p> <p>(a) an audible and visual alarm system which alerts occupants to the need to evacuate, sufficiently prior to likely inundation to allow for the safe evacuation of pedestrians and vehicles;</p> <p>(b) signage to identify the appropriate procedure and route to evacuate; and</p> <p>(c) exits which are located such that pedestrians evacuating any location during any flood do not have to travel through deeper water to reach a place of refuge above the PMF flood event, away from the enclosed car parking.</p> <p>Adverse Impacts (for the purposes of the Flood Prone Land clause only) means, the proposed development:</p> <ul style="list-style-type: none"> • Will result in less than 0.02m increase in the 1% AEP • Will result in less than a 0.05m increase in the PMF • Will result less than a 10% increase in PMF peak velocity • Will have no loss in flood storage or flood way in the 1% AEP <p>Alterations and Additions (for the purposes of the Flood Prone Land clause only) means:</p> <p>(a) In the case of residential development, a one-off addition to, or alteration of an existing dwelling and/or the construction of a new garage or development ancillary to residential development where the new work results in an additional ground floor area of less than 30m² or an increase of less than 10% of the ground floor area (whichever is lesser); or</p> <p>(b) In the case of non-residential development, a one-off addition to, or alteration of, an existing building of not more than 100m² or 10% of the ground floor area (whichever is the lesser).</p> <p>Annual Exceedance Probability (AEP) means the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. The 1% AEP or 1:100 AEP means there is a 1 in 100 probability of the corresponding flood discharge occurring in</p>

		<p>any given year.</p> <p>Australian Height Datum (AHD) is a common national plain of level corresponding approximately to mean sea level.</p> <p>Average Recurrence Interval (ARI) is an alternative to AEP for expressing the likelihood of occurrence of a flood event. It means the long-term average number of years between the occurrences of a flood as big as, or larger than, the selected event. For example, floods with a discharge as great as, or greater than, the 100 year ARI flood event have a 1 in 100 probability of occurring in any given year.</p> <p>Compensatory Works (for the purposes of the Flood Prone Land clause only) refers to earthworks where material is excavated (or "cut") from one location in the floodplain and placed (or "filled") at another location in the floodplain, with no net importation of fill material, such that the volume available for storage of flood waters is not altered for all floods and flood behaviour is not impacted.</p> <p>Effective warning time is the time available after receiving advice of an impending flood and before the floodwaters prevent appropriate flood response actions being undertaken. The effective warning time is typically used to move equipment or stock, raise furniture, evacuate people and transport their possessions.</p> <p>Enclosed car parking means car parking enclosed on all sides, which is potentially subject to rapid inundation, which in turn consequently increases risk to human life and property (such as basement parking, enclosed garages or bunded car parking areas).</p> <p>Flood affected properties means properties on land susceptible to overland flooding or mainstream flooding up to the Probable Maximum Flood.</p> <p>Flood awareness is an appreciation of the likely effects of flooding and knowledge of the relevant flood warning and evacuation procedures.</p> <p>Flood compatible buildings includes buildings designed to withstand flood damages such as:</p> <ul style="list-style-type: none"> (d) Collapse as a result of water pressure; (e) Displacement of structures off their foundations as a result of buoyancy forces; (f) Weakening, distortion or failure as a result of saturation.

<p>Components, materials, connections and services required to achieve flood compatibility are outlined in the <i>Australian Building Codes Board - Construction of Buildings in Flood Hazard Areas, 2012</i></p>	<p>Flood Hazard – Flood Hazard is a term used to determine the safety of people and property and is based on a combination of flood depth (above ground level) and flood velocity for a particular sized flood. Flood Hazard is classified as either Low Hazard or High Hazard.</p> <p>In High Flood Hazard areas, there is a possible danger to personal safety, able-bodied adults would have difficulty wading and there is the potential for significant structural damage to buildings. In Low Flood Hazard areas, able-bodied adults would have little difficulty wading and nuisance damage to some structures would be possible.</p> <p>The method for determining Provisional Low and High Hazard Categories is outlined in the NSW Government's Floodplain Development Manual (2005) (the Manual).</p> <p>Flood Management Report means a technical report of adequate qualitative and quantitative detail addressing the management of flood risk, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a Structural Engineer (where necessary) to satisfy the requirements as set out by this Plan.</p> <p>Flood Planning Area (FPA): The <i>Flood Planning Area</i> is the area below the Flood Planning Level as determined by an engineering professional in a Flood Study undertaken in accordance with the Floodplain Development Manual.</p> <p>Flood Planning Levels (FPL) has the same meaning as provided in the Manly LEP 2013, Warringah LEP 2011 and Pittwater LEP 2014.</p> <p>A reduced freeboard will be considered on its merits for properties impacted by peak flood depths less than 0.3m and velocity depths less than 0.3m²/s. The reduced freeboard must be appropriately justified in a Flood Management Report prepared by a suitably qualified professional.</p> <p>Flood prone land (being synonymous with flood liable and floodplain) is the area of land that is subject to inundation by the <i>probable maximum flood</i> (PMF).</p> <p>Flood Proofing – Dry means measures that protect a building from the entry of</p>

	<p>floodwaters by sealing a building's exterior walls and other floodwater entry points.</p> <p>Flood Proofing – Wet means a combination of measures incorporated into the design, construction and/or alteration of buildings, structures and surrounds, to enable a building or structure to withstand forces due to floodwater ingress and passage, whilst remaining structurally sound, to mitigate flood damages.</p> <p>Flood Risk Emergency Assessment Report means a technical assessment of adequate qualitative and quantitative detail addressing the management of risk to life, and other criteria (where applicable) as it affects the subject property and its surrounds within the floodplain. The report is to be prepared by a <i>suitably qualified professional</i> and in conjunction with a Structural Engineer (where necessary) to satisfy the requirements as set out by the control and policy.</p> <p>Flood Risk Precinct (FRP) refers to the division of the floodplain on the basis of the level of expected risk to persons and property due to flooding. In this plan the floodplain is divided into the Low, Medium and High flood risk precincts.</p> <p>Low Flood Risk precinct means all <i>flood prone land</i> not identified within the High or Medium flood risk precincts.</p> <p>Medium Flood Risk precinct means all <i>flood prone land</i> that is (a) within the 1% AEP Flood Planning Area; and (b) is not within the high flood risk precinct.</p> <p>High Flood Risk precinct means all <i>flood prone land</i> (a) within the 1% AEP Flood Planning Area; and (b) is either subject to a high hydraulic hazard, within the floodway or subject to significant evacuation difficulties (H5 and or H6 Life Hazard Classification).</p> <p>Flood Risk Precinct Maps means maps held by Council identifying the boundaries of the Flood Risk Precincts produced through a publicly available <i>Flood Study or Floodplain Risk Management Plan</i>.</p> <p>Flood Storage Area means those parts of the floodplain that are not part of the <i>floodway</i>.</p> <p>Floodplain Development Manual (FDM) refers to the document dated April 2005, published by the New South Wales Government and entitled "Floodplain Development</p>

<p>Manual: the management of flood liable land".</p> <p>Floodplain Risk Management Plan (FRMP) means a plan prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMP's and Floodplain Management Plans, which all have the status of FRMP's for the purposes of this Plan.</p> <p>Floodplain Risk Management Study (FRMS) means a study prepared for one or more floodplains in accordance with the requirements of the FDM or its predecessors.</p> <p>Note: The predecessors to the FDM provided similar processes for the preparation and adoption of FRMS's and Floodplain Management Studies, which all have the status of FRMS's for the purposes of this Plan.</p> <p>Floodway is the area of the floodplain where a significant discharge of water occurs during floods and is often aligned with naturally defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.</p> <p>Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for a FPL is actually provided. It is a factor of safety typically used in relation to the setting of flood levels, levee crest levels, etc. Freeboard is included in the <i>flood planning level</i> (see definition).</p> <p>Habitable floor area (for the purposes of the Flood Prone Land clause only) means:</p> <p>(a) In a residential situation: any floor containing a room or rooms used or capable of being adapted for use for residential purposes, such as a bedroom, living room, study, dining room, kitchen, bathroom, laundry, toilet but excluding any floor used solely for the purposes of car parking or storage;</p> <p>(b) In a non-residential situation: an area used for the regular activities of the building, including but not limited to offices, work areas, staff kitchens, staff lounge room, reception area or for storage of possessions susceptible to flood damage in the event of a flood.</p> <p>Note: Separate considerations are specified for the car parking area of a development irrespective of the land use with which it is associated.</p>	

			<p>Hazard is a source of potential harm or a situation with a potential to cause loss. In relation to this Plan, the hazard is flooding which has the potential to cause harm or loss to the community.</p> <p>Hydraulic Engineer (for the purposes of the Flood Prone Land clause only) - A civil or environmental engineer who is a registered professional engineer with chartered professional status (CP Eng) specialising in the field of hydrology/hydraulics, as it applies to floodplain management, and has an appropriate level of professional indemnity insurance.</p> <p>Hydraulic hazard is the hazard as determined by the provisional criteria outlined in the FDM in a 1% AEP flood event.</p> <p>Local overland flooding means inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.</p> <p>Local Stormwater (for the purposes of the Flood Prone Land clause only) - is defined as land that has a 1% AEP peak flood depth between 0.05m and 0.15m with a velocity depth between 0.025m²/s and 0.3m²/s.</p> <p>Mainstream Flooding (for the purposes of the Flood Prone Land clause only) - inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.</p> <p>Minimise Risk - It is recognised that, due to the many complex factors that can affect a site within the floodplain, the flood risk for a site and/or development cannot be completely removed. It is, however, essential that risk be minimised to at least that which could be reasonably anticipated by the community in everyday life. Further, landowners should be made aware of the reasonable and practical measures available to them to minimise risk as far as possible. Hence where the Policy requires that "an acceptable level of risk" be achieved or where measures are to be taken to "minimise risk" it refers to the process of risk reduction. The Policy recognises that development within a risk-managed floodplain does not lead to complete risk removal as this is not meaningfully achievable.</p> <p>Probable maximum flood (PMF) is the largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation.</p> <p>Probable maximum precipitation (PMP) is the greatest depth of precipitation for a given</p>

<p>duration meteorologically possible over a given size storm area at a particular location at a particular time of the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to the estimation of the probable maximum flood.</p>	<p>Probability is a statistical measure of the expected chance of an event occurring (see AEP).</p>	<p>Reliable access during a flood means the ability for people to safely evacuate an area subject to flooding, having regard to the depth and velocity of flood waters and the suitability of the evacuation route, without a need to travel through areas where water depths increase.</p>	<p>Risk means the chance of something happening that will have an impact. It is measured in terms of consequences and probability (likelihood). In the context of this plan, it is the likelihood of consequences arising from the interaction of floods, communities and the environment.</p>	<p>Structural Engineer (for the purposes of the Flood Prone Land clause only) - A structural engineer who is a registered professional with structural engineering as a core competency, and has an appropriate level of professional indemnity insurance.</p>	<p>Suitably Qualified Professional means a registered professional engineer specialising in the field of hydrology/hydraulics, as it applies to floodplain management—or otherwise qualified professional as determined at the sole discretion of Council—who is covered by an appropriate level of professional indemnity insurance.</p>	<p>Survey plan is a plan prepared by a registered surveyor which shows the information required for the assessment of an application in accordance with the provisions of this Plan.</p>

#	Policy	Amendments					
	Appendix 8 Flood Risk Management Policy for Development in Pittwater	Delete policy					
1	Appendix 15 Flood Emergency Response Planning for Development in Pittwater Policy	Update Table of Contents					
2	Appendix 15 Flood Emergency Response Planning for Development in Pittwater Policy	<table><tr><td rowspan="2">Insert</td><td>Concessional</td><td>No controls</td></tr><tr><td>occupation/change of use of an existing premises</td><td>signage intensive livestock agriculture intensive plant agriculture open cut mining jetty mooring mooring pen</td></tr></table>	Insert	Concessional	No controls	occupation/change of use of an existing premises	signage intensive livestock agriculture intensive plant agriculture open cut mining jetty mooring mooring pen
Insert	Concessional	No controls					
	occupation/change of use of an existing premises	signage intensive livestock agriculture intensive plant agriculture open cut mining jetty mooring mooring pen					

The flood risk to life is considered significant for all developments under Land use categories “Critical and Vulnerable Uses”, therefore it is preferred that these development types not be located within the PMF flood extent. Note that any alterations or additions to existing dwellings must consider this flood policy.

Class 10 buildings are non-habitable buildings or structures. Class 10 includes three sub classifications: Class 10a buildings are non-habitable buildings including sheds, carports, and private garages.

Class 10b is a structure being a fence, mast, antenna, retaining wall, swimming pool, or the like.

Class 10c building is a private bushfire shelter. A private bushfire shelter is a structure associated with, but not attached to, a Class 1a building

3	Manly Interim Policy – Flood Prone Land 2013	<i>Insert</i>	<p><u>1.7 Variation to the controls</u></p> <p><u>The following variations may apply to a change of use of an existing premises and alterations and additions to existing residential and commercial premises (as defined in the DCP):</u></p> <p><u>A variation to the controls requiring a Flood Risk Emergency Assessment Report and/or shelter in place refuge shall only be considered if justified appropriately by a suitably qualified professional.</u></p> <p><u>A completed Form 1 (Attachment A of the Flood Emergency Response Planning for Development in Pittwater Policy), must also be submitted with the development application.</u></p> <p><u>A section 88b instrument (or similar) will be required to be placed on the lot that outlines that the property has no 'shelter-in-place refuge' and that there is a risk of persons being inundated by floodwaters with no place to seek refuge on the lot.</u></p>
		<i>Delete policy</i>	

4	Water Management Policy	<table><tr><td>Amend</td><td><p>8.1.3 Demonstrating Compliance</p><p>(a) To demonstrate compliance with the relevant stormwater performance requirements, a model preferably through the Model for Urban Stormwater Improvement Conceptualisation (MUSIC), or an equivalent, widely accepted model or methodology must be provided.</p><p>Should MUSIC be used, modelling shall be undertaken in accordance with draft NSW Water Sensitive Urban Design Guidelines Northern Beaches Council WSUD Technical Guide unless alternative modelling parameters are justified on the basis of local studies. Details of the modelling of those elements, parameters and assumptions used, and all data files must be provided to the Certifying Authority as required by the conditions of consent for the development application</p></td></tr><tr><td>Delete</td><td><p>9.2.4 Development on Flood Prone Land</p><p>a) All development on land identified as being flood prone or subject to overland flows must comply with the requirements of:</p><ul style="list-style-type: none">• Section 6.3 - Flood Planning of the Warringah Local Environmental Plan 2011, and• Section E11 – Flood Prone Land of the Development Control Plan 2011• Clause 47 of the Warringah Local Environmental Plan 2000.<p>b) A Flood Risk Assessment Report prepared in accordance with Council's Guidelines for Preparing a Flood Risk Assessment Report is required for any development within land identified as 'flood affected land' meaning land below the Flood Planning Level or the Probably Maximum Flood level if vulnerable development is proposed.</p></td></tr></table>	Amend	<p>8.1.3 Demonstrating Compliance</p> <p>(a) To demonstrate compliance with the relevant stormwater performance requirements, a model preferably through the Model for Urban Stormwater Improvement Conceptualisation (MUSIC), or an equivalent, widely accepted model or methodology must be provided.</p> <p>Should MUSIC be used, modelling shall be undertaken in accordance with draft NSW Water Sensitive Urban Design Guidelines Northern Beaches Council WSUD Technical Guide unless alternative modelling parameters are justified on the basis of local studies. Details of the modelling of those elements, parameters and assumptions used, and all data files must be provided to the Certifying Authority as required by the conditions of consent for the development application</p>	Delete	<p>9.2.4 Development on Flood Prone Land</p> <p>a) All development on land identified as being flood prone or subject to overland flows must comply with the requirements of:</p> <ul style="list-style-type: none">• Section 6.3 - Flood Planning of the Warringah Local Environmental Plan 2011, and• Section E11 – Flood Prone Land of the Development Control Plan 2011• Clause 47 of the Warringah Local Environmental Plan 2000. <p>b) A Flood Risk Assessment Report prepared in accordance with Council's Guidelines for Preparing a Flood Risk Assessment Report is required for any development within land identified as 'flood affected land' meaning land below the Flood Planning Level or the Probably Maximum Flood level if vulnerable development is proposed.</p>
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		<p>17 Definitions</p> <p>Floodplain has the same meaning as defined in the Warringah Development Control Plan 2014, Local Environmental Plan 2011.</p> <p>Flood Planning Level (FPL) has the same meaning as defined in the Warringah Development Control Plan 2011, Local Environmental Plan 2011.</p> <p>Flood Prone Land has the same meaning as defined in the Warringah Development Control Plan 2011.</p> <p>Flood Risk has the same meaning as defined in the Floodplain Development Manual.</p> <p>Flood Storage has the same meaning as defined in the Floodplain Development Manual.</p> <p>Habitable Room has the same meaning as defined in the Floodplain Development Manual.</p> <p>High Hazard has the same meaning as defined in the Floodplain Development Manual.</p> <p>Impervious area refers to land covered by impervious surfaces such as buildings, paving, asphalt, tiles, and the like, which limits or prevents infiltration of water.</p> <p>Infrastructure Development means any development undertaken under the State Environmental Planning Policy (Infrastructure) 2007.</p> <p>Integrated Development has the same meaning as defined in the Environmental Planning and Assessment Act 1979.</p> <p>Inter-allotment drainage easement has the same meaning as an Easement to drain water as referred to in the Conveyancing Act 1919. An easement usually</p>
	Amend	

			<p>identified on the Certificate of Title issued by the NSW Land and Property Information.</p> <p>Inundation is the experience of getting wet by any source of water including but not limited to fluvial, tidal, oceanic, overland flows, stormwater.</p> <p>Low Level Properties means a property that has the ground level which is lower than the roadway fronting the property.</p> <p>New development means any development being designed or constructed after the authorisation of this Policy.</p> <p>Onsite stormwater detention system means is a stormwater drainage device to control the amount of stormwater discharge to a specified rate. The device is to be constructed on the subject property. Refer to Council's Onsite Stormwater Detention Technical Specification and Onsite Stormwater Detention (OSD) checklist for more information.</p> <p>Onsite Wastewater Management System has the same meaning as Sewage Management Facility as defined in the <i>Local Government (General) Regulation 2005</i>.</p> <p>Overland Flow means inundation by excess rainfall runoff, flowing across land before it enters a principal watercourse. Includes sloping areas where overland flows develop along alternative paths once system capacity is exceeded. Land is considered to be flood-affected if flow depth is greater than 0.3m, or in the case of high hazard, if flow depth is greater than 0.15m.</p>
5	Northern Beaches Flood Risk Management Policy	Creation of new policy	

Flood Prone Land

Applies to Land:

Identified on the Flood Risk Precinct Maps as being affected by flooding

Objectives

- Protection of people.
- Protection of the natural environment.
- Protection of private and public infrastructure and assets.

Requirements

The purpose of this Part is to guide development in accordance with the objectives and processes set out in the NSW Government's Flood Prone Land Policy as outlined in the NSW Government, Floodplain Development Manual, 2005.

Development to which this Part applies must comply with the performance criteria set out in clause 1.1.

Form A and A1 (Attachment A of Northern Beaches Council's Guidelines for preparing a Flood Management Report) is to be completed and submitted to Council

Development that satisfies the prescriptive controls in clause 1.2 is deemed to have satisfied clause 1.1.

1.1 Performance Criteria

- (a) **SITE LAYOUT AND BUILT FORM:** The site layout and ultimate built form of the proposed development should be compatible with the flood risk. Site analysis and layout should incorporate flood risk as a critical element in site planning.
- (b) **PUBLIC INTEREST:** The proposed development should not result in increased risk—to human life or damage to property or infrastructure—beyond acceptable limits.
- (c) **PRIVATE AND PUBLIC COSTS:** The economic and social costs, which may arise from damage to property from flooding, should not be exacerbated by proposed development.
- (d) **FLOOD EFFECTS CAUSED BY DEVELOPMENT ACTIVITY:** Development should not detrimentally increase the potential flood effects on other development or properties either individually or in combination with the cumulative impact of development that is likely to occur in the same floodplain.
- (e) **DRAINAGE INFRASTRUCTURE AND CREEK WORKS:** Any proposed works on drainage infrastructure or natural creeks, whether or not carried out as flood modification measures, shall:
 - a. Not cause adverse flooding impacts;
 - b. Not result in a loss of flood storage;
 - c. Increase protection of existing and proposed development; and

- d. Not have a detrimental impact on the environment.
- (f) **BUILDING COMPONENTS:** Building components and materials likely to be affected by flood waters should be designed, built and installed so as not to be damaged by those floodwaters.
- (g) **STRUCTURAL SOUNDNESS:** The proposed development shall be designed and constructed so that it remains structurally sound for its intended life taking into account all the likely flood events during that lifetime.
- (h) **STORAGE OF GOODS:** Goods that are likely to amplify the damages arising from flood events—including but not limited to pollutants and toxic chemicals—shall be stored so as not to find their way into floodwaters.
- (i) **FLOOD EMERGENCY RESPONSE:** Proposed developments should only be permitted where effective warning time and reliable access is available for evacuation from an area potentially affected by floods to an area free of risk from flooding. Such an area may be within the same building where a shelter-in-place option is appropriate and achievable. The emergency response should be consistent with the *Flood Emergency Response Planning for Development in Pittwater Policy* where it applies to the land. The proposed development should have procedures in place (such as warning systems, signage or evacuation drills) so that people are aware of the need to evacuate and relocate goods and motor vehicles during a flood and are capable of identifying an appropriate evacuation route.
- (j) **FLOOR LEVELS:** All floor levels within a proposed development shall be set at the required prescriptive level with additional consideration for the following:
 - a. The passage of flood waters;
 - b. The purpose for which that floor area is to be used;
 - c. The relationship with the surrounding roadways;
 - d. The relationship with the existing building if the proposal is an extension; and
 - e. Surrounding built form and streetscape.
- (k) **FENCING:** Fencing shall be designed and constructed so that it does not impede and/or direct the flow of floodwaters, add debris to floodwaters or increase flood affectation on surrounding land.

1.2 Prescriptive Controls

The prescriptive controls that may be applied to development on flood prone land are listed below. A matrix has been prepared showing which of the controls apply to the various development types and flood risk precincts.

Development Matrix

The following is a summary of the major steps to be followed in applying this part of the DCP:

- (a) Determine the Flood Risk Precinct i.e. High Flood Risk Precinct, Medium Flood Risk Precinct and Low Flood Risk Precinct within which the site is situated;
Note: Where a property is located in more than one Precinct, the assessment must consider the controls relevant to each Precinct.

- (b) The various land use or development types have been grouped into seven (7) *Land Use Categories* (refer table 1). Determine the *Land Use Category* relevant to the proposal.
- (c) Check if the proposal will satisfy the prescriptive controls for the relevant land use category in the applicable Flood Risk Precinct (FRP).
- (d) If the proposal does not satisfy any one of the applicable prescriptive controls, or where those controls require the preparation of a *Flood Management Report*, then such a report shall be prepared. The *Flood Management Report* shall be prepared by a *suitably qualified professional* and shall outline the identified flood risks relevant to the proposal, indicate the extent of compliance with prescriptive controls and provide a thorough assessment of the appropriateness of the development by reference to each of the performance criteria.

MATRIX 1: Flood Risk Precincts (FRP's)																						
	High Flood Risk							Medium Flood Risk							Low Flood Risk							
	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	
A. Flood effects caused by Development	A1	A1	A1	A1	A1	A2	A2	A1	A1	A1	A1	A1	A1	A2	A2	A2	A2	A2				
	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3	A3				
	A4	A4						A4	A4								A4	A4				
	B1	B1	B1	B1	B1	B1		B1	B1	B1	B1	B1	B1	B1		B1	B1	B1				
B. Drainage Infrastructure & Creek Works	B2	B2	B2	B2	B2	B2		B2	B2	B2	B2	B2	B2	B2		B2	B2	B2				
	C1	C1		C1	C1	C1		C1	C1		C1	C1	C1	C1	C1	C1	C1					
C. Building Components & Structural	C2	C2		C2	C2	C2		C2	C2		C2	C2	C2	C2	C2	C2	C2					
	C3	C3		C3	C3	C3		C3	C3		C3	C3	C3	C3	C3	C3	C3					
D. Storage of Goods	D1	D1		D1	D1	D1		D1	D1		D1	D1	D1	D1	D1	D1	D1					
	D2	D2		D2	D2	D2		D2	D2		D2	D2	D2	D2	D2	D2	D2					
E. Flood Emergency Response	E1	E1	E1	E1	E1	E1		E1	E1	E1	E1	E1	E1	E1	E1	E1	E1	E1				
	E2	E2	E4	E2	E2			E2	E2	E4	E2	E2	E2		E2	E2	E2	E2	E1			
	E3	E3		E3	E3			E3	E3			E3			E3	E3	E3	E3				
F. Floor Levels	F2	F2	F5	F1	F1	F2	F2	F2	F2	F2	F1	F1	F1	F2	F1	F2	F2	F2				
																					F1	

MATRIX 1: Flood Risk Precincts (FRP's)																					
	High Flood Risk							Medium Flood Risk							Low Flood Risk						
	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional
G. Car Parking	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G1	G2	G2					
	G4	G4	G2G	G2G	G2G	G2G	G2	G4	G4		G2	G2	G2	G2	G6	G6					
	G6	G6G	3	3	3G4	3	G3	G6	G6		G3	G3	G3	G3	G7	G7					
	G7	7	G4	G4	G5	G4	G4G	G7	G7		G5	G4	G4	G4	G9	G9					
	G9	G9	G5	G5	G6	G5	5	G9	G9		G6	G5	G5	G5	G10	G10					
	G10	G10	G6	G6	G7	G6	G6	G10	G10		G7	G6	G6	G6	G6	G6					
			G7	G7			G7					G8	G7	G7	G7						

MATRIX 1: Flood Risk Precincts (FRP's)																						
	High Flood Risk							Medium Flood Risk							Low Flood Risk							
	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	Critical Uses	Vulnerable Uses	Subdivision	Residential	Business & Industrial	Recreational & Environmental	Concessional	
H. Fencing	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1	H1
I. Pools	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1	I1

Table 1 Land Use Groups

Critical	Vulnerable Uses	Residential
Emergency services facility	Child care centre	Boarding house
Hospital	Educational establishment	Dual occupancy
Sewerage system	Home-based child care	Dwelling house
Telecommunications facility (SP2)	Community health service facility	Exhibition home
Public Utility Undertaking (SP2)	Information and education facility	Exhibition village
Electricity generating works	Respite day care centre	Hostel
	Seniors housing	Residential flat building
	Caravan park	Rural worker's dwelling
	Group home	Secondary dwelling
	Residential care facilities	Semi-detached dwelling
	Correctional centre	Multi dwelling housing
	Tourist and visitor accommodation	Shop top housing
		Attached dwelling

Business & industrial		
Animal boarding or training establishment	Boat building and repair facility	Business premises
Camping ground	Car park	Charter and tourism boating facility
Community facility	Crematorium	Depot
Eco-tourist facilities	Entertainment facility	Freight transport facility
Function centre	General industry	Health consulting rooms
Heavy industrial storage establishments	Highway service centre	Home business
Home occupation	Home occupation (sex services)	Industrial retail outlet
Industrial training facility	Industries	Management facility
Marina	Medical centre	Mortuary
Neighbourhood shop	Office premises	Patient transport facilities
Place of public worship	Port facility	Public administration building
Recreation facility (indoor)	Registered club	Research station

Business & industrial		
Restricted premises	Retail premises	Rural industry
Service station	Sex services premises	Storage premises
Transport depot	Truck depot	Turf farming
Vehicle body repair workshop	Vehicle repair station	Veterinary hospital
Warehouse or distribution centre	Waste disposal facility	Waste water disposal system
Water recreation structure	Water supply system	Wharf or boating facilities
Wholesale supplies		

Recreational and Environmental	Subdivision	Concessional
Aquaculture	Subdivision	Development ancillary to residential development
Boat launching ramp		
Boat shed		Occupation/change of use of an existing premises
Earthworks		
Environmental facility		Demolition
Environmental protection works		Additions/alterations to residential dwelling
Extensive agriculture		Additions/alterations to business/industrial buildings
Extractive industry		Advertising structure
Farm building		Signage
Flood mitigation works		
Forestry		
Horticulture		
Recreation area		
Recreation facility (major)		
Recreation facility (outdoor)		
Road		
Viticulture		

z

No controls
Intensive livestock agriculture
Intensive plant agriculture
Open cut mining
Jetty
Mooring
Mooring pen
Tree and/or bushland removal
Development / subdivision of a sector, buffer area or development site in a release area

A. FLOOD EFFECTS CAUSED BY DEVELOPMENT

A1	Development (including earthworks and subdivision) shall not be approved unless it can be demonstrated in a <i>Flood Management Report</i> that it complies with the Flood Prone Land Design Standard found on Council's webpage.
A2	Certification shall be provided in accordance with Northern Beaches Council's Standard Hydraulic Certification Form (Forms A and A1 of Northern Beaches Council's Guidelines for preparing a Flood Management Report) to the effect that the works have been designed and can be constructed to adequately address flood risk management issues.
A3	The applicant shall include in their submission, calculations to illustrate that any fill or other structures that reduce the total flood storage are replaced by <i>Compensatory Works</i> .
A4	<p>Development (including earthworks and subdivision) shall not be approved unless it can be demonstrated in a <i>Flood Management Report</i> that it been designed and can be constructed so that in a <i>Probable Maximum Flood</i> event:</p> <p>(a) There are no adverse impacts on flood levels and velocities caused by alterations to the flood conveyance;</p> <p>(b) There are no adverse impacts on surrounding properties; and</p> <p>(c) It is sited to minimise exposure to flood hazard.</p> <p>Where relevant certification shall also be provided in Northern Beaches Council's Standard Certification Form (Forms A and A1 of Northern Beaches Council's Guidelines for preparing a Flood Management Report) to this effect.</p>

B. DRAINAGE INFRASTRUCTURE AND CREEK WORKS

B1	Flood mitigation works or stormwater devices that modify a major drainage system, stormwater system, natural water course, floodway or flood behaviour within or outside the development site may be permitted subject to demonstration through a <i>Flood Management Report</i> that they comply with the Flood Prone Land Design Standard found on Council's webpage.
B2	A Section 88B notation under the Conveyancing Act 1919 may be required to be placed on the title describing the location and type of flood mitigation works with a requirement for their retention and maintenance.

C. BUILDING COMPONENTS AND STRUCTURAL SOUNDNESS

C1	All buildings shall be designed and constructed as <i>flood compatible buildings</i> in accordance with <i>Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas, Hawkesbury-Nepean Floodplain Management Steering Committee (2006)</i> .
C2	<p>All structures must be designed and constructed to ensure structural integrity up to the Flood Planning Level, taking into account the forces of floodwater, wave action, flowing water with debris, buoyancy and immersion. Structural certification shall be provided confirming the above.</p> <p>Where shelter-in-place refuge is to be provided the structural integrity is to be to the Probable Maximum Flood level.</p>
C3	All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed and/or located above the <i>Flood Planning Level</i> . All existing electrical equipment and power points located below the <i>Flood Planning Level</i> must have residual current devices installed that turn off all electricity supply to the property when flood waters are detected.

D. STORAGE OF GOODS

D1	Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.
D2	Goods, materials or other products which may be highly susceptible to water damage are to be located/stored above the Flood Planning Level.

E. FLOOD EMERGENCY RESPONSE

E1	Development shall comply with Council's <i>Flood Emergency Response Planning for Development in Pittwater Policy</i> and the outcomes of any <i>Flood Risk Emergency Assessment Report</i> where it applies to the land.
E2	New development must provide an appropriately sized area to safely shelter in place above the Probable Maximum Flood level and appropriate access to this area should be available from all areas within the development.
E3	<i>Adequate Warning Systems, Signage and Exits</i> shall be installed to allow safe and orderly evacuation without reliance upon the SES or other authorised emergency services personnel.
E4	The application shall demonstrate that evacuation/shelter in place in accordance with the requirements of this DCP will be available for any potential development arising from a torrens title subdivision.

F. FLOOR LEVELS

F1	<p>New floor levels within the development shall be at or above, the <i>Flood Planning Level</i>.</p> <p>A reduced Flood Planning Level may be considered only where it is permitted in this Development Control Plan.</p> <p>The structure must be flood proofed (wet or dry) to the <i>Flood Planning Level</i>. This control cannot be applied to critical or vulnerable uses.</p>
F2	<p>All development structures must be designed and constructed so as not to impede the floodway or flood conveyance on the site, as well as ensuring no loss of flood storage in a 1% AEP Event.</p> <p>Where the dwelling is located over a flow path it must be elevated on suspended pier/pile footings such that the level of the underside of all floors including balconies and decks within the flood affected area are at or above, or raised to the Flood Planning Level to allow clear passage of the floodwaters under the building. The development must comply with the Flood Prone Land Design Standard.</p>
F3	Where the lowest floor has been elevated to allow the passage of flood waters, a restriction shall be imposed on the title of the land, pursuant to S88B of the Conveyancing Act confirming that the undercroft area is not to be enclosed.
F4	<p>A one- off addition or alteration below the <i>Flood Planning Level</i> of less than 30 square metres or an increase of less than 10% of the ground floor area (whichever is the lesser) for residential development may be considered only where:</p> <p>(a) it is an extension to an existing room</p> <p>(b) the Flood Planning Level is incompatible with the floor levels of the existing room</p> <p>This control will not be permitted if this provision has previously been utilised since the making of this Plan.</p> <p>The structure must be flood proofed to the <i>Flood Planning Level</i>.</p>
F5	The applicant must demonstrate that future development following a subdivision proposal can be undertaken in accordance with this Control.
F6	<p>Any existing floor level may be retained below the <i>Flood Planning Level</i> when undertaking a first floor addition provided that:</p> <p>(a) it is not located within a floodway;</p>

	(b) there is no increase to the building footprint below the <i>Flood Planning Level</i> ; (c) it is <i>flood proofed</i> to the <i>Flood Planning Level</i> ;
F7.	All floor levels within the development shall be at or above the <i>Probable Maximum Flood level</i> or <i>Flood Planning Level</i> whichever is higher.
F8.	The minimum floor level of any first floor additions shall be at or above the Probable Maximum Flood Level.
F9.	Foyers – consideration may be given to a minimum floor level of a foyer being set at the 5% AEP flood level, provided it can be demonstrated that it complies with the Flood Prone Land Design Standard.
F10	Consideration may be given to a minimum floor level for the first 5 metres from the street front of new development in business zonings below the <i>Flood Planning Level</i> provided it can be demonstrated that it complies with the Flood Prone Land Design Standard.
F11	<p>A one-off addition or alteration below the <i>Flood Planning Level</i> of less than 100 square metres or an increase of less than 10% of the ground floor area (whichever is the lesser) for non-residential development may be considered only where the required floor level cannot be achieved for the following reason:</p> <p>(a) it would be incompatible with floor levels of the existing building</p> <p>This control will not be considered if the existing floor level of the additions/alterations are located within a high hydraulic hazard area.</p> <p>This control will not be permitted if this provision has previously been utilised since the making of this Plan.</p> <p>Any features of the additions or alterations on the floor level must be flood proofed to the <i>Flood Planning Level</i></p>

G. CAR PARKING

G1	Open carpark areas and carports shall not be located within a floodway.
G2	The lowest floor level of open carparks and carports (unroofed or with open sides) shall be constructed no lower than the natural ground levels.
G3	<p>All <i>enclosed car parks</i> must be protected from inundation up to the relevant <i>flood planning level</i>. For example, basement carparks must be provided with a crest at the entrance, the crest of which is at the relevant <i>Flood Planning Level</i>.</p> <p>All access, ventilation and any other potential water entry points to any <i>enclosed car parking</i> shall be above the relevant <i>Flood Planning Level</i>.</p> <p>Council will not accept any options that rely on electrical, mechanical or manual exclusion of the floodwaters from entering the <i>enclosed carpark</i></p>
G4	<p>Vehicle barriers or restraints are to be provided to prevent floating vehicles leaving the site where there is more than 300mm depth of flooding in a 1% AEP flood event.</p> <p>The minimum height of the vehicle barriers or restraints must be at or above the <i>Flood planning Level</i>.</p> <p>Vehicle barriers or restraints must comply with the Flood Prone Land Design Standard.</p>
G5	Enclosed Garages must be located at or above the <i>1% AEP level</i>
G6	Carports must comply with the Flood Prone Land Design Standard

G7	Where a driveway is required to be raised it must be demonstrated that there is no loss to flood stage in the 1% AEP flood event and no impact on flood conveyance through the site
G8	Multi Dwelling Housing and Shop Top Housing residential carparking – consideration may be given to a minimum floor level for open or covered carparking being set at the 5% AEP flood level, provided it can be demonstrated that it complies with the Flood Prone Land Design Standard.
G9	<p>All <i>enclosed car parks</i> must be protected from inundation up to the <i>Probable Maximum Flood</i> level or <i>Flood Planning Level</i> whichever is higher. For example, basement car parks must be provided with a crest at the entrance, the crest of which is at the relevant <i>Probable Maximum Flood</i> level or <i>Flood Planning Level</i> whichever is higher.</p> <p>All access, ventilation and any other potential water entry points to any <i>enclosed car parking</i> shall be above the relevant <i>Probable Maximum Flood</i> level or <i>Flood Planning Level</i> whichever is higher.</p>
G10	Enclosed Garages must be located at or above the <i>Probable Maximum Flood Level</i> or <i>Flood Planning Level</i> whichever is higher.

H. FENCING

H1	Fencing, including pool fencing, shall be designed so as not to impede the flow of flood waters and not to increase flood affectation on surrounding land. Appropriate fencing must comply with the Flood Prone Land Design Standard in addition to other regulatory requirements of pool fencing.
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I. POOLS

I1	<p>Pools located within the 1% AEP flood extent are to be in-ground, with coping flush with natural ground level. Where it is not possible to have pool coping flush with natural ground level, it must be demonstrated that the development will result in no net loss of flood storage and no impact on flood conveyance on or from the site.</p> <p>All electrical equipment associated with the pool (including pool pumps) is to be waterproofed and/or located at or above the <i>Flood Planning Level</i>.</p> <p>All chemicals associated with the pool are to be stored at or above the <i>flood planning level</i>.</p>
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Notes:

Applications must demonstrate compliance with the following references:

- *Flood Prone Land Design Standard*
- *Flood Risk Management Policy*

Flood Prone Land Design Standard

This design standard provides detailed specifications for development on flood prone land in support of the Flood Prone Land clause in the:

- Manly Development Control Plan (2013)
- Warringah Development Control Plan (2011)
- Pittwater 21 Development Control Plan (2015)

A1	<p>The development has been designed and can be constructed so that in a 1%AEP flood event:</p> <p>(a) There is no net loss of flood storage/ floodway; (b) There are no adverse changes in flood levels and velocities caused by alterations to the flood conveyance; (c) There are no adverse effects on surrounding properties; and (d) It is sited to minimise exposure to flood hazard.</p> <p>Where relevant certification shall also be provided in Northern Beaches Council's Standard Certification Form (Form A in Flood Risk Management Policy for Development) to this effect.</p>
B1	<p>The development has been designed and can be constructed so that in a 1% AEP flood event:</p> <p>(a) There is no loss of flood storage/floodway; (b) There are no adverse effects on surrounding properties; (c) The works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow regimes, the clearing of riparian vegetation, artificial modification of the natural stream, such as by relocation, piping etc, in accordance with Council's Protection of Waterways and Riparian Land Policy).</p> <p>Certification shall also be provided in Northern Beaches Council's Standard Certification Form (Form A in Flood Risk Management Policy for Development) to this effect.</p>
F2	<p>For suspended pier/pile footings, there must also be sufficient openings in perimeter walls located below the Flood Planning Level to allow for the flood waters to flow through unimpeded:</p> <p>a) The underfloor area of the dwelling below the <i>Flood Planning Level</i> is to be designed and constructed to allow clear passage of floodwaters, and (b) 50-75% of the perimeter of the underfloor area is of an open design between the natural ground level and the <i>Flood Planning Level</i>. Only 25-50% of the perimeter would be permitted to be solid, and (c) No solid areas of the perimeter of the underfloor area would be permitted in a floodway.</p>
F9	<p>It must be demonstrated that:</p> <p>(a) The Flood Planning Level is more than 1 metre above the typical existing ground level, and (b) The maximum footprint of the foyer is limited to 15 square metres, and (c) The foyer is not used for habitable purposes, and (d) All structural elements, external finishes and internal finishes are constructed from flood compatible materials, and (e) All electrical services, power points, fittings and equipment are located above the Flood Planning Level.</p>
F10	<p>It must be demonstrated that:</p> <p>(a) The development is located within an existing Business Zone and; (b) The minimum floor level of the first internal 5 metres from one street front only, is no lower than the adjacent footpath level, and</p>

	<p>(c) The maximum internal distance from the front of the building is 5 metres, and</p> <p>(d) The maximum area for each individual premises below the <i>Flood Planning Level</i> is 30 square metres, and</p> <p>(e) There is direct internal access between areas above and below the <i>Flood Planning Level</i> for each individual premises, and</p> <p>(f) All new and existing structural elements, external finishes and internal finishes below the <i>Flood Planning Level</i> are constructed from flood compatible materials, and</p> <p>(g) All electrical services, power points, fittings and equipment are located above the <i>Flood Planning Level</i>, and</p> <p>(h) All internal areas below the <i>Flood Planning Level</i> are assumed to be enclosed and so will not be available to form an offset for floodplain storage volume.</p>
G4	<p>Vehicle barriers or restraints (such as mounding, bunding, louvers or similar) that redirect and/or exclude floodwaters will not be permitted. Perimeter walls/louvers installed as vehicle barriers or restraints are to be of an open design, where 50-75% of the perimeter walls/louvers are 'open' between natural ground level and the <i>Flood Planning Level</i>. Only 25-50% of the perimeter walls/louvers would be permitted to be 'solid', openings should permit a 75 mm sphere to pass through, and should not impede the flow of water</p>
G5	<p>Car ports must:</p> <p>(a) Be of an open design, where 50-75% of the perimeter walls are 'open' between natural ground level and the <i>Flood Planning Level</i>. Only 25-50% of the perimeter wall would be permitted to be 'solid', openings should permit a 75 mm sphere to pass through, and should not impede the flow of water; and</p> <p>(b) Constructed of flood compatible material.</p>
G8	<p>It must be demonstrated that:</p> <p>(a) The <i>Flood Planning Level</i> is more than 1.5m above the typical existing ground level, and</p> <p>(b) All structural elements, external finishes and internal finishes below the <i>Flood Planning Level</i> are constructed from flood compatible materials, and</p> <p>(c) All electrical services, power points, fittings and equipment are located above the <i>Flood Planning Level</i>, and</p> <p>(d) 50-75% of the perimeter walls are 'open' between natural ground level and the <i>Flood Planning Level</i>. Only 25-50% of the perimeter would be permitted to be 'solid', Openings should permit a 75 mm sphere to pass through, and should not impede the flow of water, and</p> <p>(e) Internally there are no solid dividing walls within the carparking area, and</p> <p>(f) No 'storage cages' are permitted within the carparking area below the <i>Flood Planning Level</i>, and</p> <p>(g) Prominent signage is displayed that warns of the possibility of flooding and that personal goods other than vehicles must not be stored in the carparking area, and</p> <p>(h) Vehicle barriers or restraints will be provided to prevent floating vehicles leaving the carparking area.</p>
H1	<p>Fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open for passage of flood waters - All new fencing on the property must be flood compatible with 50-75% of the fence being of an open design between the natural ground level and the <i>Flood Planning Level</i>. Only 25-50% of the perimeter fence would be permitted to be solid. Openings should permit a 75 mm sphere to pass through, and should not impede the flow of water.</p>

Flood Risk Management Policy

Policy Statement

The Flood Risk Management Policy (the Policy) establishes the flood risk management approach within the Northern Beaches Council Local Government Area (LGA).

Through strategic and operational outcomes, Council aims to reduce the impact of flooding and reduce private and public losses resulting from floods.

Principles

The objectives of this Policy are:

- (a) To ensure a sustainable and holistic catchment wide approach is taken to development, of both private land uses and public facilities, on flood prone land;
- (b) To increase public awareness of the hazard and extent of land affected by all potential floods, including floods greater than the 1% AEP flood;
- (c) To ensure the flood risk associated with development is minimised;
- (d) To manage the risk to life, damage to property and impacts on the natural environment caused by flooding and inundation by controlling development on flood prone land;
- (e) To ensure the development is compatible with the flood risk through the application of risk-based controls that take into account social, economic, ecological and design considerations;
- (f) To ensure that proposed development does not expose existing development to increased risks associated with flooding;
- (g) To ensure that effective development controls apply so that development is carried out in accordance with these objectives and the requirements of this policy;
- (h) To ensure that the preparation of flood related information required to be lodged under this Plan are carried out by *suitably qualified professionals* with appropriate expertise in the applicable areas of engineering.

Scope & Application

Council manages flood prone land in accordance with the Flood Risk Management Process as outlined in the NSW Government Floodplain Development Manual, 2005 with the aim of producing Floodplain Risk Management Plans for the LGA.

Council undertakes both strategic and operational actions in the management of the floodplain.

At the **strategic** level Council undertakes the following actions:

Risk Assessment and Management

Council will identify, map and manage flood prone land in accordance with the Flood Risk Management Process. This involves undertaking Flood Studies, Floodplain Risk Management Studies and Floodplain Risk Management Plans with the aim of adopting and implementing plans for the entire LGA. Recommended floodplain management options will be investigated in detail and implemented in a priority order in accordance with available resources.

Land Use Planning

Council will maintain a framework of Local Environmental Plans and Development Control Plans to provide appropriate flood risk protection measures. The flood related development controls will

contain provisions to manage the flood risk to both life and property. Planning proposals seeking to rezone land will be assessed in accordance with Section 117 Direction 4.3 Flood Prone Land and must demonstrate that the flood risk to future occupants and structures can be appropriately managed through the available legislative framework.

Combat Agencies

Communication and relationships with relevant combat agencies will be fostered and strengthened through the sharing of flood intelligence, establishment of partnership projects and informing the development of Local Flood Plans and other emergency incident management plans. Strategies for improvement in incident response and shared incident response methodologies will be implemented where relevant.

Climate Change

The Northern Beaches is expected to be particularly affected by the impacts of climate change. Council recognises the importance of climate change adaptation and will investigate the impacts of climate change in flood risk projects in accordance with the best available data, science and policy. Changes to climate change policy or practice will be implemented on an iterative basis to reflect the current best advice/information.

Community Engagement

Council recognises the importance of community engagement in achieving good governance and well understood and accepted outcomes. Engagement on flood risk projects will be undertaken in accordance with the Northern Beaches Council Community Engagement Policy and Matrix. Public exhibitions of Flood Studies will be accompanied by opportunities to meet with staff on a personal level to discuss issues. Flood risk awareness through engagement is recognised as a strategic priority.

Flood Monitoring Program

Effective flood warning and response can reduce the impacts of flooding. Council operates a series of flood monitoring stations and a publicly accessible flood warning webpage known as the Northern Beaches Flood Information Network. Council proactively monitors weather and potential flooding conditions. Council will continue to investigate and implement improvements to the flood warning system to better prepare for and respond to flood events.

At the **operational** level Council undertakes the following actions:

Risk Response

Council undertakes a number of risk response measures to reduce the impacts of flooding. This includes mechanically opening the entrances of Manly, Curl Curl, Dee Why and Narrabeen Lagoons at defined trigger levels. Council also maintains the water level of Manly Dam at 34.1m AHD to provide flood storage during severe storms.

Education

Council in conjunction with the NSW SES will prepare and implement education strategies. to build community resilience to flood and coastal storms. Such strategies will improve the capacity of the Northern Beaches community to prepare, respond and recover from major flood and storm events and learn from their experiences to improve future preparedness.

Mitigation Works

Floodplain Risk Management Plans will investigate a range of floodplain management options to reduce the impacts of flooding in individual catchments. This may include property modification options such as development controls, voluntary purchase or voluntary house raising however often a Plan may recommend the delivery of flood mitigation works. Council will investigate and

implement mitigation works in accordance with the Floodplain Risk Management Process and priority rankings. Council undertakes the Narrabeen Lagoon Entrance Clearance Works on a 3-5 year schedule to promote an increase in the duration in which Narrabeen Lagoon is open and to reduce the severity of flooding impacts.

Development Applications

Applications for development on flood prone land will be assessed according to the legislative framework of Local Environment Plans, Development Control Plans and any supporting documentation including policies. Appropriate controls will be applied to ensure that future occupants of the floodplain are not subject to an unacceptable level of flood risk.

Section 149 certificates

Question 7A of a Section 149(2) certificate identifies whether flood related development controls apply to individual properties. Following the release of publicly available flood information, the answer to Question 7A will be amended to reflect whether flood related development controls now apply to subject properties. Section 149 (5) certificates will be amended to reflect when flood studies are in progress but not yet adopted by Council.

References and related documents

- Manly Local Environmental Plan (2013)
- Warringah Local Environmental Plan (2011)
- Warringah Local Environmental Plan (2000)
- Pittwater Local Environmental Plan (2014)
- Manly Development Control Plan (2013)
- Warringah Development Control Plan (2011)
- Warringah Development Control Plan (2000)
- Pittwater 21 Development Control Plan (2015)
- Floodplain Development Manual: the management of flood liable land, 2005, NSW Government

Responsible Officer

Executive Manager – Natural Environment & Climate Change

Review Date

At least every four years or as required.

Revision History

Revision	Date	Change	HPE CM Ref
1			
2			

Flood Emergency Response Planning for Development in Pittwater Policy

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1 Flood Emergency Response Planning for Development in Pittwater Policy

1.1 Purpose

In accordance with the Floodplain Development Manual (FDM) (NSW Government, 2005), in flood prone land the responsibility lies with Council to ensure new developments minimise flood risk through the implementation of effective flood emergency response measures.

To help minimise the flood risk to occupants, it is important that developments have provisions to facilitate flood emergency response. There are two main forms of flood emergency response that may be adopted by people within the floodplain:

- > Evacuation: The movement of occupants out of the floodplain before the property becomes flood affected; and,
- > Shelter-in-place: The movement of occupants to a building that provides vertical refuge on the site or near the site before their property becomes flood affected.

By establishing minimum requirements for evacuation and shelter-in-place strategies for new developments, including additions and alterations to existing developments, Council ensures that:

- > Flood risk associated with development is clearly identified; and,
- > Flood risk to life for development is appropriately managed.

In assigning what is an acceptable emergency response measure for a development, Council has taken into consideration:

- > Flood Life Hazard Category: Life hazard accounts for the potential hazard relating to the flood behaviour throughout the Local Government Area (LGA). If the floodplain were occupied at the time of flooding then the flood life hazard categories indicate the hazard occupants would be exposed to. Flood life hazard categories have been mapped for the entire Pittwater LGA (and available through Council Flood Information Request service);
- > Land-use: The land-uses within the floodplain provide an indication of the occupation of the floodplain which will influence the number and demographic of people exposed to flood risk. Therefore emergency response requirements should be tailored to each land-use; and,
- > Proposed emergency response: Consideration of emergency response measures relates to the likelihood of occupants within the floodplain being directly exposed to flood hazard. The emergency response requirements are dependent on if evacuation or shelter-in-place is the adopted emergency response.

By adjusting emergency response requirements for each development based on these considerations, the flood risk to life may be addressed in a targeted way while not being needlessly onerous on the developer / land owner.

1.2 Risk Assessment Categories

There are three subjective risk assessment categories:

- > Acceptable risk: Flood risk to life is considered negligible and the flood emergency response planning policy does not apply;
- > Tolerable risk: Flood risk to life is significant and the flood emergency response planning policy applies for all developments;
- > Unacceptable risk: Flood risk to life is severe, developments should not be permitted on a flood risk to life basis.

A graphical representation of the risk categories as they relate to flood life hazard categories are shown in Table 1-1. As seen in Table 1-1 this flood emergency response planning policy applies to all land assigned a flood life hazard category of H3-H4 or greater.

Table 1-1 Flood Risk Assessment Outcomes Summary

Adopted Emergency Response	Flood Life Hazard Category			
	H1 - H2	H3 – H4	H5	H6
Evacuation				
Shelter-in-Place				

Where, Green = Acceptable risk, flood emergency response planning policy does not apply;

Yellow = Tolerable risk, flood emergency response planning policy applies for all development; and,

Orange = Unacceptable risk, no development should be permitted in these areas due to severe flood risk.

1.3 Complying Development Certification (CDC)

In accordance with Clause 3.36C of the Exempt and Complying Development Codes SEPP (NSW Government, 2008), flood affected properties may be eligible for a complying development certificate if the development does not lie within a "high risk area".

For developments within the Pittwater LGA, "high risk areas" are defined as areas of flood life hazard category H3-H4 or greater. Therefore areas of flood life hazard category H1-H2 are considered "low risk areas" and Complying Development Certification may still be possible in these areas.

1.4 Developments to Which This Policy Applies

A summary of the land-use groups is included in Table 1-2.

Table 1-2 Land Use Groups

Critical	Vulnerable Uses	Residential
emergency services facility	child care centre	boarding house
hospital	educational establishment	dual occupancy
public administration building	home-based child care	dwelling house
sewerage system	Community health service facility	exhibition home
Telecommunications facility (SP2)	information and education facility	exhibition village
Public Utility Undertaking (SP2)	respite day care centre	hostel
electricity generating works	seniors housing	residential flat building
	caravan park	rural worker's dwelling
	group home	secondary dwelling
	residential care facilities	semi-detached dwelling
	correctional centre	multi dwelling housing
	tourist and visitor accommodation	shop top housing
		attached dwelling

Business & industrial		
boat building and repair facility	medical centre	waste or resource management facility
business premises	mortuary	management facility
car park	neighbourhood shop	waste water disposal system
crematorium	office premises	water recreation structure
depot	Patient Transport facilities	water supply system
entertainment facility	passenger transport facility	wharf or boating facilities
freight transport facility	place of public worship	wholesale supplies
function centre	port facility	animal boarding or training establishment
general industry	recreation facility (indoor)	charter and tourism boating facility
health consulting rooms	registered club	home business
heavy industrial storage establishment	restricted premises	home occupation
highway service centre	retail premises	home occupation (sex services)
industrial retail outlet	rural industry	community facility
industrial training facility	service station	research station
industries	sex services premises	camping ground
	storage premises	eco-tourist facilities
	transport depot	marina
	truck depot	cemetery
	turf farming	
	vehicle body repair workshop	
	vehicle repair station	
	veterinary hospital	
	warehouse or distribution centre	
	waste disposal facility	

Recreational and Environmental	Subdivision	Concessional	No controls
aquaculture	subdivision	occupation/change of use of an existing premises	signage
boat shed			intensive livestock agriculture
environmental facility			intensive plant agriculture
environmental protection works			open cut mining
extensive agriculture			jetty
extractive industry			mooring
farm building			mooring pen
flood mitigation works			recreation area
forestry			tree and/or bushland removal
horticulture			earthworks
recreation facility (major)			road
recreation facility (outdoor)			boat launching ramp
viticulture			demolition
			development/subdivision of a sector, buffer area or development site in a Release Area
			Class 10 buildings or Structures as defined by the Building Code of Australia

The flood risk to life is considered significant for all developments under Land use categories "Critical and Vulnerable Uses", therefore it is preferred that these development types not be located within the PMF flood extent. Note that any alterations or additions to existing dwellings must consider this flood policy.

Class 10 buildings are non-habitable buildings or structures. Class 10 includes three sub classifications:
 Class 10a buildings are non-habitable buildings including sheds, carports, and private garages.
 Class 10b is a structure being a fence, mast, antenna, retaining wall, swimming pool, or the like.
 Class 10c building is a private bushfire shelter. A private bushfire shelter is a structure associated with, but not attached to, a Class 1a building

1.4.1 Land Release Developments

This Flood Emergency Response Planning for Development in Pittwater policy and the associated development controls does not apply to Development/subdivision of a sector, buffer area or development site in a Release Area. Flood affected land release developments such as those identified in the Warriewood Urban Land Release are expected to have a more significant impact on flood risk to life.

The development controls specified in this policy address flood risk to life accounting for moderate intensification of development within the floodplain. Development/subdivision of a sector, buffer area or development site in a Release Area are more likely to result in previously low density or unoccupied flood affected land having a major increase in occupation and therefore flood risk to life. The controls specified in this policy therefore do not address flood risk to life adequately to account for land release developments.

Development/subdivision of a sector, buffer area or development site in a Release Area should adopt the same emergency response principles within this policy however to a greater extent incorporating a more complex assessment to ensure future flood risk is not increased as a result of Development/subdivision of a sector, buffer area or development site in a Release Area.

1.5 Evacuation Requirements

1.5.1 Evacuation Feasibility

The assessment of evacuation feasibility for a development needs to also account for the Flood Life Hazard Category of the site, to determine if evacuation is feasible refer to the Developer Decision Tree in Attachment A.

1.5.2 Flood Risk Emergency Assessment

For evacuation to be considered an acceptable emergency response development and alterations and additions to existing development should demonstrate all occupants may evacuate safely through a Flood Risk Emergency Assessment that considers:

- > Council's guideline document for preparing Flood Risk Emergency Assessments,
- > Proposed evacuation route and mode of transport, and the flood hazard along the route in the PMF.
Note that:
 - Evacuation routes must not be through private property that is not a part of the subject site;
 - Evacuation route must be flood free in the Probable Maximum Flood event
 - Preferable evacuation routes are rising road access
 - Evacuation must be to a public area with shelter located above the Probable Maximum Flood Level
- > Evacuation timeline including time required vs time available based on principles established in the NSW SES Evacuation Timeline Model and adapted for local evacuation ;
- > Intended evacuation destination, the flood hazard at the destination, the level of service provided by evacuation destination (medical, food, water, communication lines), and duration of isolation of the destination in the PMF event from any of these services;
- > Consideration of vulnerability of likely occupants, and their ability to evacuate;
- > Consideration of the number of occupants, ensuring sufficient capacity of evacuation route, and evacuation destination to facilitate all occupants;
- > Intended flood warning mechanism, potentially outlining concept design of warning systems taking into account flooding at all times of the day;
- > Identification of the depth of floodwater along the evacuation route in the 1% AEP and PMF events;
- > Intended flood evacuation awareness, if no obvious evacuation route is available then signage should assist occupants, particularly for business and commercial land uses; and

- > Identification of any buildings on site that are appropriate for shelter-in-place as an alternative emergency response (see **Section 1.6** for further details).

The combination of all these factors contribute to the acceptability of evacuation as an emergency response. Council's assessment of evacuation strategies will involve a merits based assessment based on the factors listed above.

1.6 Shelter-in-Place Requirements

The following sections outline the shelter-in-place requirements and to which development types the controls are relevant.

1.6.1 Flood Risk Emergency Assessment

For shelter-in-place to be considered an acceptable emergency response, a development should demonstrate that the development controls summarised in the following sections have been addressed through a Flood Risk Emergency Assessment report.

1.6.2 Minimum Floor Level for Shelter in Place

The adopted requirements for shelter in place minimum floor levels are equal to the PMF flood event. These requirements apply to all tolerable life hazard categories, H3-H4 and H5 categories.

1.6.3 Floor Space

The adopted requirements for shelter in place minimum floor space are:

- A floor space of the shelter-in-place area 2 m² per person is required for all long duration flooding unless it can be shown the development lies within this region but is only inundated for a "short duration" (less than 6 hours in the PMF); or,
- A floor space of the shelter-in-place area 1 m² per person is required for development located in short duration flooding (less than 6 hours in the PMF).

These requirements apply to all tolerable flood life hazard categories, H3-H4 and H5 categories, and all development types.

The definition of sufficient capacity is defined as floor space of 1 m² per person for short duration (less than 6 hours), and 2 m² per person for long duration (greater than 6 hours).

1.6.4 Accessibility

The adopted requirements for shelter in place for all developments are:

- > Shelter-in-place refuge must be accessible to all people on the site, plainly evident, and self-directing, with sufficient capacity of access routes for all occupants.
- > There must be sufficient time for all occupants to access shelter-in-place refuges, with fail safe access provided with no reliance on elevators. Flood warning systems should be considered where the number of occupants is significant.

1.6.5 Building Stability

For all shelter-in-place refuge buildings proposed within flood risk to life category H3-H4:

- > Structural stability of the refuge building is to be verified by a suitably qualified structural engineer considering lateral flood flow, buoyancy, suction effects, and debris load impact of 1% AEP design flood depths and velocities; and
- > Refuge must comply with Building Code of Australia requirements, with external components rated appropriately for storm, wind, and moisture.

This requirement is relevant for all land-use types.

For all shelter-in-place refuge buildings proposed within flood risk to life category H5:

- > Structural stability of the refuge building is to be verified by a suitably qualified structural engineer considering lateral flood flow, buoyancy, suction effects, and debris load impact of PMF design flood depths and velocities; and
- > Refuge must comply with Building Code of Australia requirements, with external components rated appropriately for storm, wind, and moisture.

This requirement is relevant for all land-use types.

1.6.6 Serviceability

The following serviceability requirements only apply to long duration flooding unless it can be shown the development lies within this region but is only inundated for a “short duration” (less than 6 hours in the PMF). The serviceability requirements apply for all land-uses with the exception of subdivision:

- > Sufficient clean water; and
- > First Aid Kit; and
- > Portable radio with spare batteries; and
- > Torch with spare batteries.

In addition, land-use groups listed under Critical and Vulnerable Uses must also provide:

- > a practical means of medical evacuation; and
- > Emergency power.

1.7 Variation to the controls

The following variations may apply to a change of use of an existing premises and alterations and additions to existing residential and commercial premises (as defined in the DCP):

A variation to the controls requiring a Flood Risk Emergency Assessment Report and/or shelter in place refuge shall only be considered if justified appropriately by a suitably qualified professional.

A completed Form 1 (Attachment A of the Flood Emergency Response Planning for Development in Pittwater Policy), must also be submitted with the development application.

A section 88b instrument (or similar) will be required to be placed on the lot that outlines that the property has no ‘shelter-in-place refuge’ and that there is a risk of persons being inundated by floodwaters with no place to seek refuge on the lot.

2 Attachment A – Evacuation Feasibility

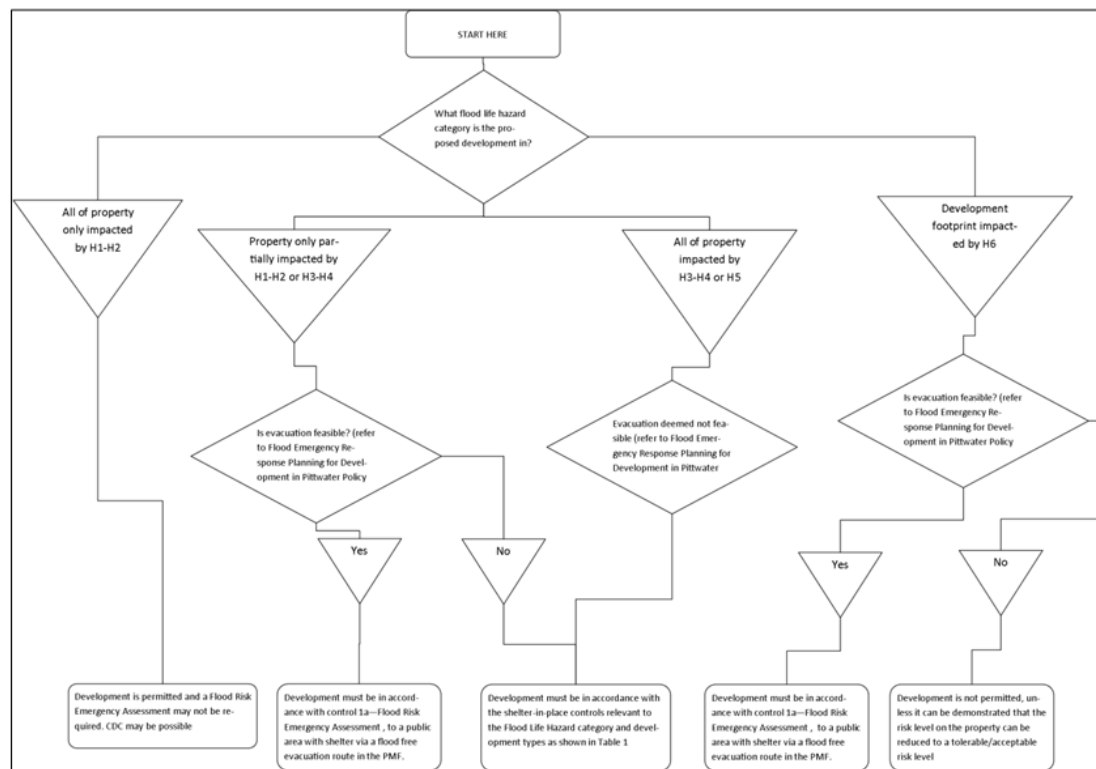


Figure 1 Developer Decision Tree

3 Attachment C – Form 1

FLOOD EMERGENCY RESPONSE PLANNING FOR DEVELOPMENT IN PITTWATER POLICY

FORM NO. 1 – To be submitted with Development Application

Development Application for

(Name of Applicant)

Address of site: _____

Declaration made by hydraulic engineer or engineer specialising in flooding/flood emergency response as part of a Flood Risk Emergency Assessment:

I, _____ on behalf of _____
(Insert Name) (Trading or Business/ Company Name)

on this the _____
(Date) certify that I am a engineer or

consultant specialising in flood emergency response and I am authorised by the above organisation/ company to issue this document and to certify that the organisation/ company has a current professional indemnity policy of at least \$2million.

Flood Risk Emergency Assessment Details:

Report Title:

.....

Report Date:

Author:

Author's Company/Organisation:

I: _____
(Insert Name)

Please tick appropriate box (more than one box can be marked)

☐ have followed Councils guidelines for 'Flood Risk Emergency Assessment Report (FREA)'

☐ have prepared the Flood Risk Emergency Assessment referenced on Form 1 in accordance with Council's guidelines and the Flood Emergency Response Planning for Development in Pittwater Policy.

☐ am willing to technically verify that the detailed Flood Risk Emergency Assessment referenced on Form 1 has been prepared in accordance with Council's guidelines and the Flood Emergency Response Planning for Development in Pittwater Policy.

☐ have examined the site and the proposed development in detail and have carried out a risk assessment (which has been attached to this form), and can confirm that:

☐ The addition/dwelling/building is located outside of the extents for Flood Life Hazard Categories H3-H4, H5 and H6 and a Flood Risk Emergency Assessment in not required.

☐ confirm that the results of the risk assessment for the proposed development are in compliance with the Flood Risk Management Policy for Development in Pittwater and a detailed risk assessment is not required for the subject site.

☐ have examined the site and the proposed development/alteration/addition in detail and I am of the opinion (after carrying out a risk assessment) that the Development Application does not require a Flood Risk Emergency Assessment and I have attached the risk assessment to this form.

☐ have reviewed (provide details of Report) the Flood Risk Emergency Assessment previously prepared for this property and can confirm it is up to date and is still current.

Declaration by engineer/consultant:

I am aware that the Flood Risk Emergency Assessment referenced on Form 1, prepared for the abovementioned site is to be submitted in support of a Development Application for this site and will be relied on by Pittwater Council as the basis for ensuring that the Flood Risk Management aspects of the proposed development have been adequately addressed to achieve an "Acceptable or Tolerable Risk" level for the life of the structure, taken as at least 100 years unless otherwise stated and justified in the Report and that reasonable and practical measures have been identified to remove foreseeable risk.

Signature

Name

Chartered Professional Status.....

Membership No.

Company.....

Number of years specialising in flood emergency response.....

PL 850 Water Water Management Policy

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1 Purpose of the Policy

This Policy provides the requirements for the effective management of stormwater, rainwater, groundwater and wastewater within the Warringah local government area.

2 Principles

The Water Management Policy aims to:

- Minimise the risk to public health and safety
- Reduce the risk to life and property from flooding
- Manage and minimise stormwater overland flow, nuisance flooding and groundwater related damage to properties
- Protect and improve the ecological condition of our beaches, lagoons, waterways, wetlands and surrounding bushland
- Encourage the reuse of water and alternative water sources
- Integrate water sensitive urban design measures into the built form to maximise amenity
- Protect Council stormwater drainage assets during development works and to ensure Council's drainage rights are not compromised
- Align development controls with the objectives of the Water Sensitive Warringah Strategic Plan and Environmental Sustainability Strategy.

3 Development to Which this Policy Applies

This Policy applies to All development in the Warringah Local Government Area subject to Part 4 of the *Environmental Planning & Assessment Act 1979* including Development Applications, Exempt and Complying Development.

This Policy shall be read in conjunction with the Warringah Local Environmental Plan, Warringah Development Control Plan 2011 and other documentation as referred to within this policy.

3.1 Identifying Planning Controls Which Apply

To identify which planning controls apply to the development, applicants **must** refer to both Table 1 and Table 2.

Table 1 identifies sections that apply to particular development type, and Table 2 identifies sections which apply based on the site and development characteristics (one or more may apply).

Table 1 – Development Types

Development Types		Sections which Apply					
		Section 4.0 – Standard of Design, Construction & Installation	Section 5 – Disposal of Stormwater	Section 7.1 – Water Conservation & Reuse	Section 8.1 – Stormwater Quality	Section 8.3 – Erosion, Sediment and Pollution Controls	Section 9.1 – Onsite Stormwater Detention
Single Lot Residential Development		✓	✓	✓		✓	✓
Residential Flat Buildings or Multi-residential dwelling houses	Development with a site area less than 1000m ²	✓	✓	✓		✓	✓
	Development with a site area greater than 1000m ²	✓	✓	✓	✓	✓	✓
Commercial or Mixed Use or Industrial	Development with a site area less than 1000m ²	✓	✓	✓		✓	✓
	Development with a site area greater than 1000m ²	✓	✓	✓	✓	✓	✓
Subdivision	Subdivision resulting in the creation of: two (2) lots where the total post development impervious area of the new lots exceeds 40%.	✓	✓	✓	✓	✓	✓
	Subdivision resulting in the creation of: • three (3) lots or more.	✓	✓	✓	✓	✓	✓

Table 2 – Site/Development Characteristics (more than one requirement may apply)

Site/Development Characteristics		Sections which Apply							
		Section 6 – Building Over or Adjacent to Council Drainage Systems and Easements	Section 7.2 – Onsite Sewage Management	Section 8.1 – Stormwater Quality	Section 8.2 – Groundwater Management	Section 9 – Flood Risk Management	Section 9.1 – Onsite Stormwater Detention	Section 9.3 – Overland Flow	Section 10.3 – Removal of Private Trees Threatening Council Stormwater Pipes
Increased hard surfaces	Development where the total existing and proposed impervious areas exceeds 40% of the site area						✓		
	Development proposing an increase in impervious area of more than 50m ²			✓					
Near a Council stormwater system	All development containing or adjacent to Council stormwater infrastructure Refer to Council's Stormwater Planning Maps	✓							✓
Groundwater	All development intercepting groundwater				✓				
No Sewer	Any property not connected to the Sydney Water sewerage network or which utilises an onsite wastewater management system		✓						
Flooding or Overland flow	All development located on Flood Prone Land Refer to Section 149 Planning Certificate or Council's Flood Maps:- <ul style="list-style-type: none">• High Flood Risk Planning Precinct• Medium Flood Risk Planning Precinct• Low Flood Risk Planning Precinct					✓			
	All development on land affected by overland flows. Refer to Council's Stormwater Planning Maps							✓	

4 General Requirements

4.0 Standard of Design, Construction & Installation

All works are to be designed, constructed and installed in accordance with the following:

- [Auspec1 Design Manual](#)
- [Minor works specification](#)
- *Local Government Act 1993*
- *Roads Act 1993*
- Plumbing Code of Australia
- [Water by Design Technical Guidelines](#)
- Relevant Australian Standards
- Warringah Local Environmental Plan 2000
- [Environment & Health Protection Guidelines for Onsite Sewage Management for Single Households](#)
- [Interim NSW Guidelines for Management of Private Recycled Water Schemes](#)
- Warringah Local Environmental Plan 2011
- Warringah Development Control Plan 2011
- Technical Specifications where specified
- Water Sensitive Warringah Strategic Plan
- Water Sensitive Warringah Technical Paper

5 Disposal of Stormwater

5.1 General

- (a) Stormwater drainage for all properties must be by gravity means. Mechanical methods of stormwater disposal (e.g. pump-out systems) will only be permitted for draining sub-surface flows from underground areas and basement car parks in commercial or residential flat buildings.
- (b) Diverting flows from one catchment (or sub-catchment) to another catchment (or sub-catchment) will not be permitted. Properties must drain in the direction of their natural catchment.
- (c) Drainage easements obtained through downstream properties for piping flows to a drainage system, at the applicant's expense, are strongly encouraged. Refer to section 5.4 further requirements for drainage easements.
- (d) All drainage structures are to be designed to be visually unobtrusive and sympathetic with the proposed development and the surrounding environment i.e. water sensitive urban design.
- (e) Disposal of stormwater must not unreasonably impact on the downstream environment.
- (f) Piping the property drainage system across a public road is not permitted. Consideration will be given to extending Council's system across the public road to facilitate disposal of stormwater from the property at the applicant's expense.
- (g) Stormwater drainage works must be approved by Council under the provisions of the *Roads Act 1993* and *Local Government Act 1993*.
- (h) Inability to comply with the requirements of this policy may result in Development Consent not being granted.

5.2 Street & Trunk Drainage

- (a) Street and trunk drainage is to be designed and constructed so as to:
- i. provide convenience and safety for pedestrians and traffic during storm events,
 - ii. minimise damage to private and public buildings, and
 - iii. minimise risks to life and property by overland flow during major storm events.
- (b) Street and trunk drainage must comply with the following specifications:
- i. [Auspec1 Design Manual](#)
 - ii. [Minor works specification](#)

5.3 Discharge to Roads & Maritime Services Drainage System

Where stormwater is to be discharged to the street gutter or underground drainage system of a road that is under the control of the Roads & Maritime Services (RMS), Council will refer the Development Application to the RMS for review.

5.4 Properties Unable to Connect to a Council Stormwater Drainage System or Easement

- (a) Any property that is unable to connect to a Council stormwater drainage system, such as land falling naturally away from a Council stormwater drainage system, is required to comply with Council's [Stormwater Drainage from Low Level Properties Technical Specification](#).
- (b) Developments proposing to discharge stormwater to a watercourse or open channel must comply with the requirements of section 8.4 - Stormwater Discharge to Watercourse or Open Channel.
- (c) Where an inter-allotment drainage easement is to be created, a letter of agreement to the creation of the easement from all the affected property owners shall accompany the development application. This is to demonstrate to Council that a suitable easement/s can be obtained. The letter/s shall be accompanied with a plan of the location of the proposed easement/s also signed by all the affected property owners. The letter/s is/are not to contain any conditions that may preclude the creation of the easement.

5.5 Stormwater Entering Properties from Upstream Lots

- (a) Runoff currently entering the site from upstream properties should not be obstructed from flowing onto the site nor redirected so as to increase the quantity or concentration of surface runoff entering adjoining properties.
- (b) When a retaining wall is to be constructed across an overland flow path any intercepted flow must be contained within the property where the retaining wall is required and this flow connected to the site drainage system.
- (c) Where the overland flow rates are significant, the requirements of section 9.3 – Overland Flow will need to be satisfied.

6 Building Over or Adjacent to Council Drainage Systems and Easements

Council drainage systems may be located within private property. To determine if the property is burdened or is adjacent to a public drainage system, refer to [Council's Stormwater Planning Map](#).

- (a) All development on land containing or adjacent to or proposing to reconstruct/relocate a public drainage system, must comply with Council's [Building Over or Adjacent to Constructed Council Drainage Systems and Easements technical specifications](#).

Note:

This does not apply to land with natural (unconstructed) drainage systems and watercourses. In these instances, section 8.4 - Stormwater Discharge to Watercourse or Open Channel and 5.4 - *Properties Unable to Connect to a Council Stormwater Drainage System* and Council's [Protection of Waterways and Riparian Land Policy](#).

7 Sustainable Water Management and Onsite Sewage Management Systems

7.1 Water Conservation & Reuse

7.1.1 Water Efficiency

- (a) Buildings that are not affected by BASIX that are installing any water use fittings must demonstrate compliance with the minimum standards defined by the Water Efficiency Labelling and Standards (WELS) Scheme. Minimum WELS rated fittings include:
- i. 4 star dual-flush toilets
 - ii. 3 star showerheads
 - iii. 4 star taps (for all taps other than bath outlets and garden taps)
 - iv. 3 star urinals
 - v. 3.5 star washing machines
 - vi. 4 star dishwashers.
- (b) Cooling towers must:
- i. Connect a conductivity meter to ensure optimum circulation before discharge.
 - ii. Include a water meter connected to a building energy and water metering system to monitor water usage
 - iii. Employ alternative water sources for cooling towers where practical.

7.1.2 Rainwater Tanks

Rainwater tanks which are connected for internal use (toilet flushing & washing machine) and external reuse (garden irrigation) are encouraged for all developments.

- (a) Rainwater tanks shall comply with the following:
- i. Be fitted with a first-flush device that causes initial rainwater run-off to bypass the tank and must drain to a landscaped area. The first flush device will not be permitted to connect to the stormwater system
 - ii. Have a sign affixed to the tank stating the contents is rainwater
 - iii. Be constructed or installed in a manner that prevents mosquitoes breeding, such as the use of mesh to protect inlets and overflows
 - iv. Have its overflow connected to an existing stormwater drainage system that does not discharge to an adjoining property, or cause a nuisance to adjoining owners
 - v. Pumping equipment must be housed in a soundproof enclosure

- vi. Where the rainwater tank is interconnected to a reticulated water supply, it must be installed in accordance with Plumbing Code of Australia, particularly backflow/cross connection prevention requirements.
- (b) If OSD is required for residential development, Council may permit the volume of rainwater reuse to be credited against the calculated OSD storage volume as determined by Council's [Onsite Stormwater Detention Technical Specification](#), provided the rainwater tank is connected for internal reuse.

7.2 Onsite Sewage Management

Warringah Council is the regulatory authority for onsite sewage management systems under the *Local Government Act 1993*.

All systems must be installed and operated in order to:

- (a) Prevent the spread of disease by micro-organisms
- (b) Prevent the spread of foul odours
- (c) Prevent contamination of water
- (d) Prevent degradation of soil and vegetation
- (e) Discourage insects and vermin
- (f) Encourage the re-use of resources (including nutrients, organic matter and water)
- (g) Minimise any adverse impacts on the amenity of the land on which it is installed or constructed and other land in the vicinity of that land

The owners of the property are responsible for the correct operation and functioning of the onsite wastewater management system. Penalty Infringement Notice and Orders can be issued for systems that do not comply with the approval to operate or cause water pollution.

7.2.1 New Systems

- (a) An '[Approval to Install an Onsite Sewage Management System](#)' must be obtained prior to the installation or modification of any system as required by the *Local Government Act 1993*. The applicant must submit all information as detailed in the application form.
- (b) All systems must be designed, installed and operated in accordance with:
 - i. *Local Government Act 1993*
 - ii. [Environment & Health Protection Guidelines for Onsite Sewage Management for Single Households](#)
 - iii. [Interim NSW Guidelines for Management of Private Recycled Water Schemes](#)
 - iv. AS1547
 - v. Plumbing Code of Australia
 - vi. The manufacturer's specifications, and
 - vii. Any conditions of approval from Council.
- (c) Water use fittings must demonstrate compliance with the minimum standards defined by the Water Efficiency Labelling and Standards (WELS) Scheme. Minimum WELS rated fittings include:

- i. 4 star dual-flush toilets
 - ii. 3 star showerheads
 - iii. 4 star taps (for all taps other than bath outlets and garden taps)
 - iv. 3 star urinals
 - v. 3.5 star washing machines
 - vi. 4 star dishwashers.
- (d) A certificate from a licenced plumber may be required by the Principal Certifying Authority prior to the release of the Occupation Certificate.
- (e) Should 'Approval to Install' be granted, the applicant must then obtain an '[Approval to Operate an Onsite Sewage Management System](#)', prior to commissioning of the system. At this time, a risk category will be assigned to the approval which will determine the period of approval.
- (f) The use of pump-out style systems is not the preferred outcome for sewage management and should be proposed only after other onsite disposal systems have been determined as unsatisfactory.

7.2.2 Existing Systems

- (a) All onsite systems must hold a current '[Approval to Operate an Onsite Sewage Management System](#)', as required by the *Local Government Act 1993*.
- (b) An Approval to Operate will be assigned a risk category which will determine the period of approval.
- (c) All Aerated Wastewater Treatment Systems (AWTS) must be inspected by an appropriately qualified servicing agent every three months or as specified by the systems NSW Health conditions of accreditation. All costs are at the householders expense. A report must be prepared for each inspection with a copy forwarded to Council. Any faults identified at this inspection must be repaired promptly.
- (d) For modifications of an existing system an '[Approval to Install an Onsite Sewage Management System](#)' must be obtained in addition to the satisfying the requirements outlined in 7.2.1.
- (e) All systems will be subject to inspection by Council on a frequency determined by risk. The inspection will identify any Environmental or Public Health issues and where necessary take action to have these matters rectified.
- (f) The destruction, removal or reuse of an onsite sewage management system shall be undertaken in accordance with the NSW Health Advisory Note 3 dated May 2006 "[Destruction, Removal or Reuse Of Septic Tanks, Collection Wells, Aerated Wastewater Treatment Systems and other Sewage Management Facility Vessels](#)".

8 Protecting Our Environment

This policy aims to protect and improve the health of Warringah's waterways through the appropriate planning, design and operation of stormwater treatments measures for urban development. The outcomes Council seeks include:

- i. The integration of water sensitive urban design measures in new developments to address stormwater and floodplain management issues

- ii. Improve the quality of stormwater from urban development
- iii. Mimic natural stormwater flows by minimising impervious areas, reusing rainwater and stormwater and providing treatment measures that replicate the natural water cycle
- iv. Preserve, restore and enhance riparian corridors as natural systems

8.1 Stormwater Quality

Stormwater treatment measures are required to ensure the development does not impact on the receiving waters. The stormwater quality requirements are generally aligned with the catchment classifications as detailed in the Warringah Creek Management Study.

8.1.1 Stormwater Quality Requirements

To determine which stormwater requirements apply to the site use the table below to identify the land type.

Land Type	Table Which Applies
Undeveloped land ⁱ within a Group A & B Catchment ⁱⁱ	Table 3 – Stormwater Quality Objectives
Land within the riparian buffer of a Coastal Upland Swamp in the Sydney Basin Bioregion Endangered Ecological Community ⁱⁱⁱ	
All other land not identified above	Table 4 – General Stormwater Quality Requirements

Notes:

- i. Refer to the Definition section at the end of this Policy for definitions for “Undeveloped Land”.
- ii. Catchment Boundaries & Groupings are identified in the [Warringah Creek Management Study](#)
- iii. To determine if the development is within the riparian buffer of the above noted Endangered Ecological Community, refer to the following: [Section 149 Planning Certificate](#), [Protection of Waterways and Riparian Land Policy](#), [Waterways and Riparian Map](#) and [Threatened and High Conservation Habitat Map](#).

Table 3 – Stormwater Quality Objectives

Criteria	Objectives
Stormwater Quality	Stormwater quality discharging from the development shall not impact the receiving waters. Reference shall be made to local data if available, including the Warringah Creek Management Study and the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC), or other widely accepted guidelines.
Sediment	Disturbance to stream and wetland sediments is to be minimised by regulated discharge of stormwater and dissipation of flows at discharge locations. Runoff from the development must be retained at natural discharge rates and sediments controlled at the source.
Hydrology	<p>Stormwater flow is to mimic natural conditions and ensure a dispersed pattern of flow, avoiding centralised or concentrated discharge points into the wetland or waterway.</p> <p>Natural flow regimes must be retained. The reduction or increase in flows, alteration in seasonality of flows, changes to the frequency, duration, magnitude, timing, predictability and variability of flow events, altering surface and subsurface water levels and changing the rate of rise or fall of water levels must be avoided.</p>

Table 4 – General Stormwater Quality Requirements

Pollutant	Performance Requirements
Total Phosphorous	65% reduction in the post development mean annual load ¹
Total Nitrogen	45% reduction in the post development mean annual load ¹
Total Suspended Solids	85% reduction in the post development mean annual load ¹
Gross Pollutants	90% reduction in the post development mean annual load ¹ (for pollutants greater than 5mm in diameter)
pH	6.5 - 8.5
Hydrology	The post-development peak discharge must not exceed the pre-development peak discharge for flows up to the 2 year ARI

Note:

¹The percentage reduction in the post development mean annual loads are relative to the loads from the proposed development without treatment applied.

8.1.2 Standards of Design

- (a) All stormwater treatment measures must be designed in accordance with the requirements of this Policy and the [Water by Design Technical Guidelines](#), and modified for local conditions as appropriate.
- (b) Stormwater treatment measures must be sited on private land. Council will not accept the ownership or maintenance responsibilities of any stormwater treatment devices.
- (c) For alterations and additions and the like, the stormwater quality requirements only apply to the new works.
- (d) Stormwater treatment measures must not be sited within riparian zones or within remnant vegetation.
- (e) Stormwater treatment measures must be kept offline and adequate erosion and sediment controls shall be implemented on site until the site has been fully stabilised. Refer to section 8.3 Erosion, Sediment and Pollution Controls for further details for erosion and sediment controls.
- (f) All stormwater treatment measures must be sited in an area which is easily and safely accessible (e.g. road side) and have wet weather access.
- (g) Stormwater treatment measures with a permanent water body must be completely fenced to the standard as required by the *Swimming Pools Act 1992* and associated Australian Standards.
- (h) A positive covenant and Restriction As to User must be registered on the title for the stormwater treatment measures to ensure regular maintenance and reliable operation.

8.1.3 Demonstrating Compliance

- (a) To demonstrate compliance with the relevant stormwater performance requirements, a model preferably through the Model for Urban Stormwater Improvement Conceptualisation (MUSIC), or an equivalent, widely accepted model or methodology must be provided.

Should MUSIC be used, modelling shall be undertaken in accordance with Northern Beaches Council WSUD Technical Guide unless alternative modelling parameters are justified on the basis of local studies. Details of the modelling of those elements, parameters and assumptions used, and all data files must be provided to the Certifying Authority as required by the conditions of consent for the development application.

- (b) The applicant is to engage the services of a qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER-3) to ensure the development complies with the relevant stormwater quality requirements outlined above.

8.1.4 Operation and Maintenance Plan

An Operation and Maintenance Plan is to be prepared to ensure proposed stormwater quality measures remain effective. For Community Title developments, the Plan is to be included in the Community Management Statement.

The Plan must contain the following:

- a) Maintenance schedule of all stormwater quality treatment devices
- b) Maintenance requirements for establishment period
- c) Routine maintenance requirements
- d) Funding arrangements for the maintenance of all stormwater quality treatment devices
- e) Identification of maintenance and management responsibilities
- f) Vegetation species list associated with each type of vegetated stormwater treatment device
- g) Inspection and maintenance record and reporting
- h) Waste management and disposal
- i) Traffic control (if required)
- j) Maintenance and emergency contact information
- k) Renewal, decommissioning and replacement timelines and activities of all stormwater quality treatment devices
- l) Work Health and Safety requirements
- m) Record keeping

8.2 Groundwater Management

- (a) The groundwater regime is to be maintained as close as possible to pre-development conditions and shall not adversely impact on receiving waters and groundwater dependant ecosystems.
- (b) Developments intercepting the water table are classified as Integrated Development and will require concurrence from the NSW Office of Water under the *Water Management Act 2000*.
- (c) Groundwater discharged to the stormwater system shall comply with the discharge requirements detailed in section 8.3 – Erosion, Sediment and Pollution Controls and any relevant legislation.
- (d) Records of all water discharges and monitoring results are to be documented and kept on site. Copies of all records shall be provided to the appropriate regulatory authority upon request.
- (e) Groundwater must be discharged to the nearest stormwater pit in accordance with Council's [Auspec1 Design Manual](#). Discharge to the kerb and gutter will not be accepted.
- (f) Construction techniques, where possible, shall eliminate the need for dewatering i.e. a tanked construction.
- (g) Where below-ground structures are in close proximity to each other (typically less than 3 metres) there shall be no allowance provided for natural flow of groundwater through these narrow corridors, unless adequate justification from a suitably qualified engineer is provided.
- (h) Provision must be made for groundwater flows in the design of perimeter or through drainage system.

8.3 Erosion, Sediment and Pollution Controls

- (a) Erosion and sediment controls are to be designed, constructed and installed in accordance with [Landcom's Managing Urban Stormwater: Soil and Construction Manual](#) (2004) and maintained until the site is fully stabilised to prevent pollution of the receiving environment.
- (b) Council will require the submission of the following plans with the development application:
- An **Erosion and Sediment Control Plan** (ESCP) for all development which involves the disturbance of up to 2500m² of land.
 - A **Soil and Water Management Plan** (SWMP) for all development which involves the disturbance of more than 2500m² of land. A SWMP must be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER-3).
- (c) The design storm event for the stability of erosion, sediment and pollution control structures is to be taken as the 10-year ARI time of concentration storm event, unless as specified by Council.
- (d) Water to be discharged must be tested and, if required, treated to ensure it meets the water quality criteria and that pollution of the receiving waters does not occur.

Before water can be discharged to the receiving environment, the following criteria must be met, unless subject to an Environmental Protection Licence or site specific criteria.

Parameter	Criterion	Method	Time Prior to Discharge
Oil and grease	No visible	Visual inspection	<1 hour
pH	6.5- 8.5	Probe/meter	<1 hour
Total Suspended Solids	<50mg/L	Meter/grab sample	<1 hour

- (e) Records of all water discharges and monitoring results are to be documented and kept on site. Copies of all records shall be provided to the appropriate regulatory authority upon request.
- (f) All chemicals and hazardous substances must be stored and handled in accordance with relevant State and Federal requirements. This includes providing mandatory spillage containment areas (i.e. bunding) to prevent chemicals entering the stormwater system and storage above the Flood Planning Level if located on flood prone land.

8.4 Stormwater Discharge to Watercourse or Open Channel

- (a) Direct discharge to a watercourse is to be avoided. Other alternatives should be considered as detailed in Council's [Stormwater Drainage from Low Level Properties Technical Specification](#).
- (b) The creation of a discharge point within a watercourse is a Controlled Activity under the *Water Management Act 2000* and will require approval from the NSW Office of Water unless exemptions apply (refer to Schedule 5 of the Regulations).
- (c) Only a single discharge point to the watercourse or open channel from the development will be permitted.
- (a) The outlet structure must comply with [Guidelines for Outlet Structures](#) prepared by the NSW Office of Water and Council's [Protection of Waterways and Riparian Land Policy](#) for additional requirements.

9 Flood Risk Management

Council is responsible for managing flood risk in the Warringah Local Government Area (LGA). This policy is intended to complement the roles of other Government agencies that provide technical and financial assistance in the development and implementation of flood risk and management plans as well as emergency response.

The following principles will guide Warringah Council in the management of flood risk in accordance with the process outlined in the NSW Government Floodplain Development Manual (2005).

9.1 Onsite Stormwater Detention

Onsite Stormwater Detention (OSD) collects stormwater and stores it temporarily before releasing it slowly into the drainage system in order to minimise the impacts from flooding.

(a) OSD is required for the following developments:

- i. single residential dwellings where the total existing and proposed impervious areas exceed 40% of the total site area (OSD will not be required for alterations and additions or where the total site area is 450m² or less)
- ii. new residential flat buildings/multi-residential unit dwellings
- iii. commercial developments
- iv. industrial developments
- v. subdivisions resulting in the creation of three (3) lots or more
- vi. subdivisions resulting in the creation of two (2) lots or more, OSD will be required where the post developed impervious area of the new lots exceed 40% of the site area of the new lots. This requirement also applies to newly created lots with existing dwellings to be retained
- vii. Alterations and additions to existing residential flat buildings/multi-residential unit dwellings, commercial developments and industrial developments, OSD is applicable to the extent of the new works only.

(b) Development requiring OSD must comply with Council's [Onsite Stormwater Detention Technical Specification](#).

(c) A positive covenant and Restriction As to User must be registered on the title for the OSD system to ensure regular maintenance and operation.

(d) Council will not permit the use of "Drainage Cell" type products for onsite detention storage as access for maintenance or removal of silt/debris is limited.

(e) Council will allow the volume of rainwater reuse in single residential dwellings to be credited against the calculated OSD storage volume as determined by Council's [Onsite Stormwater Detention Technical Specification](#).

9.2 Identifying Flood Risk

Council will develop and implement a flood program to identify and manage flood risk in the Warringah LGA. Prioritisation of activities within the flood program is based on the potential exposure of an area to flood risk, tying in with strategic priorities, as well as availability and quality of existing studies. Council will identify the extent of inundation and the flood behaviour of lagoons, creeks, estuaries and overland flow paths in Flood Studies.

Flood studies and associated plans will be undertaken in accordance with the NSW Government Floodplain Development Manual 2005 and will be updated as required depending on their current and ongoing suitability for use.

All Flood investigations and management plans undertaken by Council will incorporate appropriate community consultation in accordance with Council's Community Engagement Policy and Framework.

9.2.1 Climate Change

The impact of climate change on flood behaviour will be investigated in all Council flood investigations. Council will consider sea level rise projections and changes in rainfall and storm surge intensity and frequency, in accordance with latest guidelines and best available information for climate change.

9.2.2 Planning Certificates

Council issues Planning Certificates under section 149 of the *Environmental Planning and Assessment Act 1979* which specify such prescribed matters relating to the land as outlined in Schedule 4 of the Regulations, including "Flood related development controls information".

Council has a statutory responsibility to update Planning Certificates as any new or updated flood data becomes available subsequent to the approval from the Council.

The recommendation to Council to update Planning Certificates should be made in the same report as the recommendation to adopt the draft Final Flood Study.

9.2.3 Provision of Data to the Public

- a) A Flood Information Report is available from Council (refer Council's fees and charges).
- b) Council will provide the 1% AEP, FPL and PMF levels for a specific property where available.
- c) Flood level information may be subject to change in the future
- d) For large-scale developments, or developments in key flood areas, applicants may be requested to use Council's hydraulic model to assess the impacts. This would be applicable only for a development which is likely to cause a change in the flood regime or requires confirmation that it will create no impact on flooding for neighbouring properties. Hydraulic models are available from Council (refer Council's fees and charges) and recipients will be required to complete the appropriate Data Use Agreement.

9.2.4 Development on Flood Prone Land

All development on land identified as being flood prone or subject to overland flows must comply with the requirements of:

- Section 6.3 - Flood Planning of the Warringah Local Environmental Plan 2011, and
- Section E11 – Flood Prone Land of the Development Control Plan 2011

- Clause 47 of the Warringah Local Environmental Plan 2000.

9.3 Overland Flow

Overland flow differs from mainstream flooding from creeks or lagoons as they are usually generated from surface run off and overflows from kerbs and smaller pipes, to more serious overland flows involving exceedance in the capacity of major trunk drainage systems.

9.3.1 Identifying Overland Flows

To determine if the subject property is affected by overland flow, a Civil Engineer who is currently registered on the National Professional Engineers Register (NPER), should be engaged to investigate and verify whether the subject property is affected by overland flows during a 1 in 100 ARI even. [Council's Stormwater Planning Maps](#) may assist identifying Council drainage in the vicinity of the property.

9.3.2 Development on Land Subject to Overland Flows

- a) For development on properties subject to overland flow that has not been identified as being flood affected must comply with flood related development controls, in particular the Warringah Local Environment Plan 2011, Warringah Development Control Plan 2011 or Warringah Local Environmental Plan 2000, as appropriate.
- b) Overland flow paths designed to contain a 1 in 100 year ARI storm flow are to be provided over all pipelines that are not designed to cater for this flow. The design of the overland flow path must consider the velocity-depth hazard.
- c) Overland flow paths are to be kept free of obstruction and must not be landscaped with loose material that could be removed during a storm event, such as wood chip or pine bark.

9.3.3 Subdivisions on Lots Affected by Overland Flow

Proposed land subdivisions of lots affected by overland flow will not be approved unless the applicant can demonstrate that future development can comply with the requirements of the Warringah Local Environment Plan 2011, Development Control Plan 2011 or Warringah Local Environmental Plan 2000, as appropriate.

9.3.4 Piping Overland Flows

Developments proposing the collection and piping of overland flow through the subject property will generally not be permitted. Where an existing Council pipeline is to be diverted and/or upgraded, the design is to be in accordance with section 6 - Building Over or Adjacent to Council Drainage Systems and Easements.

10 Compliance

Council will apply the [Compliance and Enforcement Policy PL 120](#) for the investigation of alleged unlawful activity, and any enforcement action required in relation to unlawful activity, within the Warringah local government area for which Council is the appropriate regulatory authority.

10.1 Audit of Water Management Requirements

Council may undertake audits of developments to ensure the requirements of this Policy and the development consent are met at all times. For any non-compliances identified, Council will apply the provisions of the [Compliance and Enforcement Policy PL 120](#).

10.2 Complaints Relating to Private Property

Complaints relating to stormwater from private property are only investigated by Council:

- a) after the parties has exhausted reasonable attempts to resolve the matter with each other
- b) when there is sufficient evidence that the water has caused, or is likely to cause significant soil erosion or physical damage to a building or land.

Council will not take action, when:

- a) water flow problems are caused by natural ground seepage
- b) water flows naturally onto the property from a higher property (or properties)
- c) water flows from a defective or blocked private inter-allotment drainage easement of which the complainant is a part. Private inter-allotment easements are the responsibility of all property owners who are burdened by and/or benefited by the easement
- d) water overflows from a swimming pool due to rainfall.

10.3 Removal of Private Trees Threatening Council Stormwater Pipes

- a) To protect Council's stormwater pipes from blockage or structural damage by trees on private land, landowners may be required by Council to remove any tree adjacent to the pipes when it is apparent that the tree's root system has, or is likely to, penetrate the pipeline joints. If the owner refuses to do this after reasonable notification from Council, the owner is to bear the cost of any future maintenance work on the pipeline due to tree root damage.
- b) Removal of private trees threatening Council stormwater pipes are to be conducted according to the following principles:
 - Identification of tree roots within the pipe system, by means of CCTV or visual inspection
 - Removal of root obstruction will be conducted only by the following means:
 - i. unobtrusive removal of tree root mass with no physical interference to the pipe
 - ii. excavation of the tree root mass at pipe location with minimal site disturbance
 - iii. full excavation and replacement of pipe section in accordance with [Auspec1 Design Manual](#).
- c) Tree removal will be at owner's expense.

11 Amendments

Nil

12 Authorisation

This Policy was adopted by Council on 15 December 2015.

It is effective from 15 December 2015.

It is due for review on 15 December 2019.

13 Who is Responsible for Implementing this Policy?

Group Manager Natural Environment

14 Document Owner

Deputy General Manager Environment

15 Related Policies

- a) Compliance & Enforcement Policy PL 120
- b) Risk Assessment Framework PL 700
- c) Protection of Waterways and Riparian Land Policy PL 740

16 Legislation and References

- a) *Conveyancing Act 1919*
- b) *Environmental Planning and Assessment Act 1979*
- c) *Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004*
- d) *Environment Protection and Biodiversity Conservation Act 1999*
- e) *Fisheries Management Act 1994*
- f) [Guidelines for Outlet Structures](#) prepared by the NSW Office of Water.
- g) *Local Government Act 1993*
- h) *MWH, 2004, [Warringah Creek Management Study](#)*
- i) *Protection of the Environment Operations Act 1997*
- j) *State Environmental Planning Policy 25 Building and Sustainability Index: BASIX 2004*
- k) *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*
- l) *State Environmental Planning Policy No. 71 - Coastal Protection*
- m) *Threatened Species Conservation Act 1995*
- n) *Water Management Act 2000*
- o) [Water by Design Technical Guidelines](#)

- p) Warringah Local Environment Plan 2000
- q) Warringah Local Environment Plan 2011
- r) Warringah Development Control Plan 2011
- s) Warringah Council, [Waterways and Riparian Map](#)
- t) Warringah Council, [Protection of Waterways and Riparian Land Policy](#)
- u) Warringah Council, [Building Over or Adjacent to Constructed Council Drainage Systems and Easements Technical Specifications](#)
- v) Warringah Council, [Stormwater Drainage from Low Level Properties Technical Specification](#)
- w) Warringah Council, [Onsite Stormwater Detention Technical Specification](#)
- x) Warringah Council [Compliance and Enforcement Policy PL 120](#)
- y) Warringah Council, Water Sensitive Warringah Strategic Plan
- z) Warringah Council, Water Sensitive Warringah Technical Paper

17 Definitions

Average Exceedance Probability (AEP) has the same meaning as defined in the Floodplain Development Manual.

Average Recurrence Interval (ARI) means the average or expected value of the period between exceedences of a given rainfall event or discharge.

Catchment means an area of land, bound by hills, mountains and the like from which all runoff water flows to the same low point. A catchment may possess more than one sub-catchment. Catchment Boundaries & Categories are identified in the [Warringah Creek Management Study](#) and on [Council's Stormwater Planning Maps](#).

Downstream catchment means the direct sub-catchment a low level property would drain to via gravity.

Development has the same meaning as defined in the *Environmental Planning and Assessment Act 1979*.

Development application has the same meaning as defined in the *Environmental Planning and Assessment Act 1979*.

Drainage has the same meaning as defined in the Plumbing Code of Australia which means any sanitary drainage, liquid trade waste drainage or stormwater drainage system.

Endangered Ecological Communities has the same meaning as defined in the *Threatened Species Conservation Act 1995*.

Exempt and Complying Development means any development undertaken under the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Existing development means any development prior to authorisation of this policy.

Flood has the same meaning as defined in the Floodplain Development Manual.

Flood Planning Level (FPL) has the same meaning as defined in the Warringah Local Environmental Plan.

Flood Risk has the same meaning as defined in the Floodplain Development Manual.

Flood Storage has the same meaning as defined in the Floodplain Development Manual.

Habitable Room has the same meaning as defined in the Floodplain Development Manual.

High Hazard has the same meaning as defined in the Floodplain Development Manual.

Impervious area refers to land covered by impervious surfaces such as buildings, paving, asphalt, tiles, and the like, which limits or prevents infiltration of water.

Infrastructure Development means any development undertaken under the State Environmental Planning Policy (Infrastructure) 2007.

Integrated Development has the same meaning as defined in the *Environmental Planning and Assessment Act 1979*.

Inter-allotment drainage easement has the same meaning as an Easement to drain water as referred to in the *Conveyancing Act 1919*. An easement usually identified on the Certificate of Title issued by the NSW Land and Property Information.

Inundation is the experience of getting wet by any source of water including but not limited to fluvial, tidal, oceanic, overland flows, stormwater.

Low Level Properties means a property that has the ground level which is lower than the roadway fronting the property.

New development means any development being designed or constructed after the authorisation of this Policy.

Onsite stormwater detention system means is a stormwater drainage device to control the amount of stormwater discharge to a specified rate. The device is to be constructed on the subject property. Refer to Council's [Onsite Stormwater Detention Technical Specification](#) and Onsite Stormwater Detention (OSD) checklist for more information.

Onsite Wastewater Management System has the same meaning as Sewage Management Facility as defined in the *Local Government (General) Regulation 2005*.

Overland Flow means inundation by excess rainfall runoff, flowing across land before it enters a principal watercourse. Includes sloping areas where overland flows develop along alternative paths once system capacity is exceeded.

Pollution has the same meaning as defined in the *Protection of the Environment Operations Act 1997*.

Probable Maximum Flood (PMF) has the same meaning as defined in the Floodplain Development Manual.

Receiving waters means a waterway/s into which water discharges from a development.

Remnant vegetation has the same meaning as defined in the Warringah Development Control Plan 2011.

Residential flat development has the same meaning as defined in the State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development.

Riparian land has the same meaning as defined in Council's Protection of the Waterways and Riparian Land Policy.

Riparian zone has the same meaning as defined in Council's Protection of the Waterways and Riparian Land Policy.

Sewage has the same meaning as defined in the *Local Government (General) Regulation 2005*.

Single Lot Residential Development has the same meaning as "dwelling house" as defined in the Warringah Local Environmental Plan 2011.

Site Area has the same meaning as the Warringah Local Environmental Plan 2011

Stormwater is rain water that flows over the surface of the land as run-off, rather than seeping into the soil.

Undeveloped land means land:-

- a) that has not been subject to prior development, or
- b) is in a state of nature, or
- c) with an impervious area of less than 10%.

Vulnerable Development has the same meaning as defined in the Warringah Development Control Plan 2011.

Watercourse has the same meaning as defined in Council's Protection of the Waterways and Riparian Land Policy.

Waterway has the same meaning as defined in Council's Protection of the Waterways and Riparian Land Policy.

Wastewater has the same meaning as Sewage as defined in the *Local Government Act 1993*.

Public Submissions and Responses to Proposal to Name Reserve on Ocean Street, Narrabeen, as The Kirsop Surfrider Gardens

Support	Comment	Council Response
Yes	<p>I've enjoyed the pleasure of knowing Tom Kirsop and his wife Margaret for more than 40 years and wish to strongly endorse the proposal to recognise their excellent advocacy for addressing coastal environmental issues and support of the surfing community. Tom has worked particularly hard to raise awareness of coastal environmental risks, guide wider understanding of their complexity and promote appropriate mitigation responses.</p> <p>Surfing is an integral component of the social and sporting fabric of our local area, and Tom has been an active member of the Northern Beaches surfing (and life-saving) community for many decades. In addition to addressing environmental issues, Tom has contributed countless hours to supporting the surfing community, particularly as a long-term office bearer of North Narrabeen Boardriders Club (NNBC) and Surfrider Foundation. His input over many years has contributed to NNBC to become the leading competitive boardriding club in Australia, as shown by the many national teams titles won in recent years. While not as prominent in the surfing community, Margaret has strongly supported Tom's efforts and has been a campaigner for local environmental and social issues. Their combined efforts are well deserving of tangible recognition by the northern beaches community that they have so strongly supported.</p>	Noted. The reserve currently contains surf lifesaving and surfing related memorabilia and historical information of relevance to the beach. The Kirsop's activities and community contributions are consistent with this existing theme.
Yes	Tom and Margaret's contributions to the community are wide ranging and long standing. Tom's advocacy for the protection of our beaches over many years has been an extraordinary contribution to our community. His work on mitigation of the Warriewood STP outfall, the Collaroy-Narrabeen beachfront, the surf break at North Narrabeen and other issues has been both effective and inspirational. As a citizen and ratepayer, I heartily	Noted in relation to community contribution to the Narrabeen area and issues involving the wider community.

	support this nomination.		
Yes	Yes support the naming of the park, as Tom has long involvement in formation of the park and no doubt surfing at "The Gardens".	Noted. Tom Kirsop was a member of the Warringah Coastal Management committee for many years and was a community representative during the development and implementation of the Collaroy Narrabeen Coastline Management Plan (1997)	
Yes	Absolutely love it well deserved and relevant place name	Support noted	
No	Definitely not Surfrider..they have not done anything that warrants such recognition. The park area stems from long standing State and Council coastal engineering policies to remove development from active surf zones..long before Mr Kirsop or Surfrider became involved in such matters locally. Better it be named after those involved much earlier ..eg Angus Gordon..or given a more directly meaningful name like Narrabeen Beachfront Dune Preservation Park.	<p>Mr Gordon does have a long history and significant experience in the management of coastal issues. This was Mr Gordon's profession for a majority of his career, spanning over four decades.</p> <p>The proposal of The Kirsop Surfrider Gardens is not to suggest that Kirsop or Surfrider were responsible for the existence of the reserve. The majority of the reserve was never developed and was generally public open space. Aerial photography from 1943 shows only two houses within the footprint of the reserve in the vicinity of 51 and 57 Ocean Street. 57 Ocean Street was demolished by 2008.</p> <p>The proposal is to recognise the significant contribution of Tom and Margaret Kirsop across a variety of community issues including coastal protection. This contribution was on a voluntary basis and covered many locations, however they have been involved directly in issues involving Narrabeen Beach.</p> <p>Also, Kirsop was a community representative on the Warringah Coastal Management Committee, which played a significant part in how the various coastal policies have been implemented.</p> <p>The adjacent foreshore area is known as Narrabeen Beach covering geographical reference for the location. The GNB suggests avoiding duplication of names already used for other features. The reserve area proposed to be named is the area of public open space, including the gardens, rather than the fenced, protected dune area. Dune Preservation Park is not considered reflective of the specific reserve area proposed to be named.</p>	
No	It should be called Narrabeen Anzac Memorial Beach	The war vets is known as Furlough House, which is located to the north of the area proposed to be renamed. The reserve opposite the war	

	Park....opposite war vets.	vets is formally known as Furlough Park and was assigned by the Geographical Names Board in January 1977. There is also a War Memorial and Cenotaph located to the south on the corner of Ocean Street and Pittwater Road.
No	Should be named after a prominent surfer. I suggest Midget Farrelly Gardens - or Farrelly Gardens.	The Kirsops have direct involvement with Narrabeen Beach. Midget Farrelly has more meaningful ties with other locations on the northern beaches such as Dee Why, being the founding president in 1961 of the Dee Why Surf Fraternity, and Manly, winning the first world surfing championship held at Manly in 1964. It is suggested that there are other locations and options that may be more suitable for recognising Mr Farrelly. Currently, at McKillop Park, Freshwater, there is a pathway featuring mosaics of prominent surfers, including Midget Farrelly, for example.
Yes	This wonderful couple have done so much for our coastline and oceans.	Support noted
Yes	Tom is a worthy recipient due to his contribution to local surfing and community issues over the years.	Support noted
Yes	It pays tribute to parties who've been advocates for the community at large. In preserving that land they've ensured it's there for all to enjoy.	Support noted
No	I prefer parks to be named after the geography of the area. I am against parks being named after a person who had some contribution to some section of the community at some point in time. Naming after a person alienates certain groups and the park can often lose its identity, geographic context and connection with the wider community. I would prefer this reserve to be known as "Narrabeen Beach Gardens" or similar.	<p>The Geographical Names Board (GNB) <i>Guidelines for determination of place names</i> include criteria supporting geographical references and names after people who have had significant contribution to the community. It is considered that the Kirsops meet this significant contribution criterion.</p> <p>The GNB guidelines suggest avoiding duplication of names already used for other features. The adjacent foreshore area is known as Narrabeen Beach so it is considered that this already covers the geographical reference for the area.</p> <p>By keeping the 'Gardens' component within the name, it contributes to maintaining the identity of the reserve as the current informal name of it</p>

		is 'The Gardens'.	
Yes	Tom Kirsop has given tirelessly to the community, for many decades. Without his dedication, we would no longer have Narrabeen beach and he has been instrumental in preserving many other natural features in the northern beaches.	Support noted	
Yes	I couldn't think of a better way to appreciate all the work of these 2 great people than Tom & Margaret Kirsop. Fantastic idea!	Support noted	
Yes	Tom and Margaret Kirsop have worked tirelessly for many years on a range of issues and in particular environmental issues. I have had the pleasure of knowing them both for over 20 years and their passion and commitment on those issues is as strong as it was many years . The naming of the reserve is a fitting recognition of their work .	Support noted	
No	<p>I have submitted an extensive submission as a Ms Word document to request an alternative name for this park to be known now as the "Kamminga Ocean Street Gardens". Extensive historical information about the community ties and relationship to this park is included in that submission including photographs from the 1950s.</p> <p>I will also just attach the text of that submission below as a cut and paste however I don't think the photos will attach.</p> <p>Re: Formal naming of the reserve is informally known as "The Gardens"</p> <p>In response to the call for public submissions I propose an alternative name for this reserve instead of the name previously suggested to Council. I proposed that the small reserve on Ocean Street be known as</p> <p>"KAMMINGA OCEAN STREET GARDENS"</p> <p>The reasons for this proposed name are briefly set out below for Council's consideration. I intend to provide greater detail to the</p>	<p>An extensive submission offering an alternative suggestion. According to the information provided, the alternative suggestion is not without merit and has some consistency with the GNB criteria for place names. Based on the evidence provided the family has made significant contribution to the community, for example, funding improvements to the reserve, charity work and organ donation.</p> <p>The Kamminga direct association with the reserve, beyond funding, is through use and living and working opposite.</p> <p>Note that the reserve is currently themed with surfing and surf lifesaving memorabilia, including surfboard shaped sculptures along the footpath through the reserve, with photographs and text on the sculptures with historical content.</p> <p>Whilst the Kamminga proposal has merit, it is considered that the Kirsop proposal shares links with the existing heritage content at the reserve, through their association with North Narrabeen Boardriders Club, a long history with surf lifesaving, and specific involvement in coastal protection along Collaroy Narrabeen Beach. They are also Narrabeen residents.</p>	

	<p>Geographical Names Board (GNB).</p> <p>The name I propose in this submission recognises and honours the living history of the residents and business people who lived opposite the vacant beachside land and were intimately connected with it. These notable local residents were the immigrant parents:</p> <p>Jurrien (Jerry) Kamminga, deceased 18 October 2002 Sijke (Ira) Kamminga, deceased 29 September 2014</p> <p>There is a further historical relationship with their eldest son, Klaas Kamminga, a notable local businessperson, who passed away on 16 December 2016.</p> <p>Major points:</p> <ul style="list-style-type: none"> • The Kamminga association has a demonstrable historical time depth extending back into the early 1950s. • The Kamminga immigrant couple and their immediate descendants have a direct connection with the reserve as it existed in the 1950s. • The records of this personal connection include oral traditions and evidence, surviving council records, and photographic documentation held both by public bodies and private owners. • The Kamminga couple represent Australia's post-war immigration from Europe. Many settled in the Northern Beaches. I see no evidence that these immigrants and their personal connection to land is adequately recognised in the naming of locations and places in NSW, including the northern beaches. There is no question that Dutch immigrants have made a substantial contribution to the region's culture, society and economy. The Dutch diaspora to Australia, 1949-1970 was a direct consequence of World War II. Seventy percent of Holland's total (over 110,000 people) including many to the Northern Beaches (Commonwealth of Australia 2002; DAAAG 2017). • The Kamminga family business had donated funds to Council
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	<p>in the 1960s to add infrastructure and beautify the reserve.</p> <ul style="list-style-type: none"> • Sijke Kamminga deserves to be honoured for her pioneering support and activities for organ donation. She worked tirelessly on her own, unappreciated, and in recognising the value of organ donation was well before her time. <p>General introduction</p> <p>The Kamminga couple have a long historical connection with the unnamed day reserve, dating back to an era when it was unkempt beachside land in the early 1950s. At that time, there were still WWII concrete anti-tank traps along Narrabeen-Collaroy beachfront.</p> <p>Jerry Kamminga at different times founded a number of businesses and was owner of property almost from the intersection of Ocean Street, from the present-day service station, for four commercial blocks through from Pittwater Road to Ocean Street. All these blocks faced the land of the research at it existed at that time.</p> <p>In 1952, the Kamminga parents immigrated from the city of Groningen in northern Holland. The father, the late Jerry Kamminga JP, responded to the Department of Immigration appeal and sold his two automotive repair business businesses to leave all behind and sail on the 'Fairsea' migrant ship, as full paying passengers, to Sydney to settle at Narrabeen.</p> <p>Jerry and his wife Sijke (Ina) were attracted by Narrabeen Lakes, which reminded them of the 'Paterswolde' and 'Eelderwolde' region of Holland where Jerry had been brought up. Jerry and Sijke and their four children embarked their new life in Australia. After arriving in Narrabeen, Jerry quickly purchased a building on Pittwater Road with frontage also on Ocean Street opposite the reserve for his automotive business in 1952. This was at approximately the location of present day 'Barbuto's' Restaurant. The business was called Narrabeen Car and Body Repairs (under ownership of his oldest son, Klaas Kamminga, the business name was later changed to 'Narrabeen</p>
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		<p>Smash Repairs original business employ about ten staff at any one time, not only local tradesmen and apprentices by also European immigrants from war-torn Europe.</p> <p>The family set up home above the workshop and grew the business. Two more children were born and lived above the workshop. The reserve opposite their home was used by the children as their 'personal' playground. All those cowboys and Indians fighting each other, including other children in houses nearby, the Queen's Birthday bonfires, the swimming and surfing, the sighting of whales and dolphins in the ocean across the reserve from the window. The children lived 'primitive' but had freedom that kids these days just don't have any more. The reserve was their domain.</p> <p>The second son, now one of Australia's prominent archaeologist, who co-authored the textbook 'Prehistory of Australia', and who's work contributed the creation of Kakadu National Park and its World Heritage Listing (see Kamminga and Allen 1973; Jones and Allen 1985), as a small boy in the late 1950s established his very own vegetable garden within the reserve.</p> <p>After a period of over 40 years at Ocean Street, Jerry's eldest son Klaas took over the ownership of the vehicle repair business as it was in its location opposite the park. In the early 1990s Klaas relocated the business premises in North Narrabeen. There are now three generations of Kamminga ownership of what today is I believe the largest car repair business on the Northern Beaches.</p> <p>In the 1950- 1960s Jerry bought surrounding frontage and built 'Alexander Reception Lounge' (as a venue for weddings and other events for large groups) above his extended garage. This hall had a full building-width panoramic view across the reserve to the ocean. At the time, this was the only large area venue of this type north of Dee Why. Jerry also established other business in his enlarged industrial, commercial and retail</p>
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premises, including the 'Dutch Laundrette' and a car dealership which he himself founded. 'Narrabeen Towing service' which he established in the early 1960s as an offshoot of his business is still in existence, and independently owned.	
<p>Jerry Kamminga Charitable work</p> <p>In the mid-1970s Jerry's auto repair business contributed what at that time was a large sum, \$15,000, to Council to pay for beautifying the reserve. The reserve at that time was referred to informally by local board riders as "The Special Spot".</p> <p>Jerry was much liked and had a high profile in the local community. He was highly active in charitable work as a member of the Narrabeen Lions Club from the early 1960s through the 1970s. The Lion Club membership was by invitation only, and its members the leading business people in the community. It raised money, often from the member's pockets, to do many charitable works, during at time that the charity sector in the community was small compared to today. There were not charity stores, and pensions for single mothers did not exist.</p> <p>Jerry was also a founding member of the original Dutch 'Neerlandia Club' and helped establish soccer at a popular sport in Warringah and Manly shires. I believe he was a coach for the club in the early 1960s.</p> <p>Other contribution to the area</p> <p>Jerry always was a relatively big employer of locals in the shire, many of them recent migrants from countries such as Yugoslavia, Holland, Germany and Italy. Over more than three decades he trained a significant number of apprentices who went on establish their own businesses in the local area. He started with a only a handful of workmen in 1952-53 and now in the third generation the staff has grown to over 30 people today.</p> <p>Nominees' personal connections with the reserve</p> <p>The reserve across the road from the Ocean Street workshop</p>	

	<p>was frequented by Jerry and his workers for lunch time recreation, including that now popular, but at that time somewhat alien game, of 'soccer'. New immigrant arrivals n not uncommonly spent lunch time with their wives at the beach front of the reserve, gazing at the ocean; for them it was a utopia. In those years, no other group of people used the research as much as they did.</p> <p>Sijke Kamminga</p> <p>Sijke Kamminga contributed to the community in many ways. She had seven children, but was well ahead of her time, in promoting the cause of organ donation in NSW. At the time, she personally recruited potential donor virtually no one in the community knew or cared about organ donation (at commencement of her initiative it was only corneas); there was only one person in an office in Sydney who was responsible for promoting the donor program. Sijke also took care of the ex-servicemen who commenced their ANZAC march each year at Mona Vale – her home, her facilities were always open to them as they aged progressively aged over the years. The RSL awarded Sijke a certificate of appreciation for her unfailing personal support.</p> <p>I believe contributed Sijke Kamminga may have been the only person in the community actively and promoting organ donation and eyesight health in NSW in 1970-1975.</p> <p>Summary</p> <p>It is my wish that the reserve be named as the "Kamminga Ocean Street Gardens" to acknowledge the personal connection and contribution of the post-WWII Dutch settlers who resided opposite the reserve, who used the reserve more than anyone, and who contributed financially to its original embellishment.</p> <p>The attachments to this submission include a selection of photographs taken of the Kamminga settlers and the auto workshop and the reserve in its early years. They show the park very different to what it is today.</p>

References	<p>Commonwealth of Australia 2002. Netherlands Community Profile, Australian Bureau of Statistics, Catalogue No. 2001.0. Commonwealth of Australia, Canberra.</p> <p>DAAAG 2017. 'Dutch diaspora to Australia'. In Welcome to Dutch Australians at a Glance. DAAAG. http://www.daaag.org/node/76. Accessed 17 April 2017.</p> <p>Netherlands-born Historical Background, Community Information Summary, Australian Government Department of Immigration and Citizenship. (http://www.immi.gov.au/media/publications/statistics/comm-summ/source.htm/). Accessed 17 April 2017.</p> <p>Rhys, Jones and J. Allen 1985. Archaeological Research in Kakadu National Park. Australian National Parks and Wildlife Service, Canberra.</p> <p>Johan Kamminga and Harry Allen 1973. Report on the archaeological survey. Alligator River Fact-Finding Study [Kakadu National Park]. Department of the Interior, Australian Government, and the Minerals Council of Australia. Government Printer, Darwin.</p> <p>Narrabeen Smash Repairs. Our history. http://www.nbsr.com.au/history.html. Accessed 16 April 2017.</p> <p>Attachments: Photos Letter from Sydney Eye Hospital to Sijke Kamminga Manly Daily feature article about Sijke Kamminga Jerry Kamminga in charge of the Narrabeen Lions Club 'shark display' event at Collaroy Surf Club in the early 1960s. This event raised money for local charity.</p>

	<p>Jerry Kamminga (centre) at a 'Neerlandia Club' festive event.</p> <p>Sydney Eye Hospital letter to Sijke Kamminga in 1975.</p> <p>Manly Daily (Weekend Edition) 8 March 1975 feature article about Sijke Kamminga and her personal initiative in promoting organ donation.</p> <p>View of reserve from above the workshop in the 1950s.</p> <p>Frontage of Narrabeen Car & Body viewed from Pittwater Road, c. 1954</p> <p>Original home above the workshop viewed from Ocean Street and opposite the park, c. 1953-54.</p> <p>Early days at the workshop facing Ocean Street and the proposed park, c. 1953-1954.</p> <p>Kamminga children playing in the proposed park land in the early 1950s. Note the public toilet buildings still there today. Long Reef Headland is in background.</p> <p>Johan Kamminga at a boy on the roof of garage in the early 1960s, with the reserve in the background.</p> <p>Klaas Kamminga, (second generation) as a young board surfer with his mates on the oceanside of the reserve.</p>

TABLE 1 OF DETAILED DCP AMENDMENTS FOR TREES AND BUSHLAND

#	Development Control Plan	Control	Amendments
1	Pittwater 21 DCP 2014 Amendments	B4.22 Preservation of Trees or Bushland Vegetation A1.9 The definition of a "Tree"	Delete B4.22 Preservation of Trees or Bushland Vegetation Insert Attachment 1 as <i>B4.22 Preservation of Trees and Bushland Vegetation</i> Modify the definition to read "Tree" means a palm or woody perennial plant with a single or multi stem greater than five (5) metres in height. Insert Attachment 2 Removal of Tree Test as Appendix 16 Insert Attachment 3 Tree Retention Assessment as Appendix 17 Insert Attachment 4 Class 2-9 Buildings as Appendix 18 Insert Attachment 5 Tree Protection Plan as Appendix 19 Delete E1 Private Property Tree Management
2	Warringah DCP 2011 Amendments	E1 Private Property Tree Management Appendix 5 Species suitable for removal without consent Appendix 10 Details to be contained within an Arborist's Report A.8 The definition of a "Tree"	Insert Attachment 1 as <i>E1 Preservation of Trees and Bushland Vegetation</i> Delete Appendix 5 Species suitable for removal without consent Delete Appendix 10 Details to be contained within an Arborist's Report Modify the definition of a "Tree" in A.8 to read: "Tree" means a palm or woody perennial plant with a single or multi stem greater than five (5) metres in height. Delete 3.3.2 Landscape/Tree Preservation
3	Manly DCP 2013 Amendments	3.3.2 Landscape/Tree Preservation Schedule 4 – Trees	Insert Attachment 1 as <i>3.3.2 Preservation of Trees and Bushland Vegetation</i> Delete Part A of Schedule 4 – Trees

TABLE 1 OF DETAILED DCP AMENDMENTS FOR TREES AND BUSHLAND

		<p>2.3 Approval Requirements for Removal of Trees (this is being moved to Schedule 4 – Trees as part of another project).</p> <p>Dictionary</p>	<p>Delete 2.3 Approval Requirements for Removal of Trees when it forms part of Schedule 4 - Trees</p> <p>Insert the definition of a "Tree" into the Dictionary to read:</p> <p><i>"Tree" means a palm or woody perennial plant single or multi stem greater than five (5) metres in height.</i></p> <p>Insert Attachment 2 Removal of Tree Test as Part C of Schedule 4</p> <p>Insert Attachment 3 Tree Retention Assessment as Part D of Schedule 4</p> <p>Insert Attachment 4 Class 2-9 Buildings as Part E of Schedule 4</p> <p>Insert Attachment 5 Tree Protection Plan as Part F of Schedule 4</p>
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PRESERVATION OF TREES AND BUSHLAND VEGETATION

Applies to Land (Warringah DCP and Manly DCP)
Land to which this control applies (Pittwater DCP)

This control applies all land, waterways and Bushland covered by the **Pittwater LEP 2014 / Warringah LEP 2011 / Manly LEP 2013**.

Objectives (Warringah DCP and Manly DCP)
Outcomes (Pittwater DCP)

- To protect and enhance the urban forest of the Northern Beaches.
- To effectively manage the risks that come with an established urban forest through professional management of trees.
- To minimise soil erosion and to improve air quality, water quality, carbon sequestration, storm water retention, energy conservation and noise reduction.
- To protect, enhance bushland that provides habitat for locally native plant and animal species, threatened species populations and endangered ecological communities.
- To promote the retention and planting of trees which will help enable plant and animal communities to survive in the long-term.
- To protect and enhance the scenic value and character that trees and/or bushland vegetation provide.

Requirements for Tree Development Applications

1. All trees are prescribed for the purposes of clause 5.9 of the **Pittwater LEP 2014 / Warringah LEP 2011 / Manly LEP 2013**.
2. A person shall not ringbark, cut down, top, lop, remove, poison, injure, or wilfully destroy any prescribed tree or bushland vegetation unless authorised by a current Development Consent. This includes damage to a tree or bushland vegetation by:
 - Damaging or tearing live branches and roots;
 - Damaging the bark, including attachment of objects using invasive fastenings, the fastening of materials around the trunk of trees which may result in a detrimental impact on tree health;
 - Tree topping, where large branches and/or the trunk of the tree is removed from the top of the trees canopy;
 - Tree lopping, where branches are removed to reduce the height and spread of the tree.
 - Damaging the root zone of a tree by way of compaction, including storage and stockpiling materials;
 - Changing of ground levels within the root zone of a tree by way of excavation, trenching, filling or stockpiling;
 - Underscrubbing of bushland vegetation;
 - Burning of vegetation (not part of a Hazard Reduction Certificate); or
 - Any other act or activity that causes the destruction of, the severing of trunks or stems of, or any other substantial damage to, some or all of the native vegetation in an area.

Where such activities are required as part of other works for which a Development Application (DA) is required, the works will be assessed as part of the DA.

This control does not apply to Council or its duly authorised servants or agents to carry out approved maintenance or works, including those covered under Part 5 of the Environmental Planning & Assessment Act. Works conducted in accordance with a Hazard Reduction Certificate issued under the Rural Fires Act 1997 for asset protection hazard reduction works do not require a permit.

3. Tree Development Applications (Tree DAs) are required for:
 - a) Removal or cutting down of any tree over five (5) metres in height;
 - b) Pruning of more than ten percent (10%) of a tree canopy.
 - c) The removal of "Bushland".

"Bushland" means land on which there is vegetation which is either a remainder of the natural vegetation of the land or, if altered, is still representative of the structure and floristics of the natural vegetation (as defined by the *Local Government Act 1993*).

4. The applicant must demonstrate that any tree to be removed as part of a Tree DA meets one or more of the criteria of the Removal of Tree Test in [Appendix 8 \(WDCP\)](#) / [Appendix 16 \(P21DCP\)](#) / [Part C of Schedule 4 \(MDCP\)](#) and the [Tree Retention Assessment in Appendix 9 \(WDCP\)](#) / [Appendix 17 \(P21DCP\)](#) / [Part D of Schedule 4 \(MDCP\)](#). An arborist report may be required to satisfy this requirement.
5. Applications for the removal of bushland on land under the Warringah LEP 2011 must address relevant objectives and requirements of Parts E2, E3, E4, E5, E6, E7 and E8 of the Warringah DCP 2011.

Requirements for other Development Applications

6. Development is to be sited and designed to minimise the impact on remnant native vegetation, including canopy trees and understorey vegetation, and on remnant native ground cover species.
7. Where the applicant demonstrates that no reasonable alternative design exists and a tree must be removed, suitable compensatory tree planting is required. Details including proposed species and the location of replacement planting are to be provided.
8. Development must also avoid any impact on trees on public land.
9. For development applications involving the construction of new buildings and works containing Classes 2-9 (BCA), the information contained in [Appendix 11 \(WDCP\)](#) / [Appendix 18 \(P21DCP\)](#) / [Part E of Schedule 4 \(MDCP\)](#) is to be submitted.
10. Where trees proposed to be retained may be affected by the construction of new buildings and works of Classes 1 and 10, a Tree Protection Plan as per [Appendix 12 \(WDCP\)](#) / [Appendix 19 \(P21DCP\)](#) / [Part F of Schedule 4 \(MDCP\)](#) is to be submitted.

11. Development applications which require the removal of bushland on land under the Warringah LEP 2011 must address relevant objectives and requirements of Parts E2, E3, E4, E5, E6, E7 and E8 of the Warringah DCP 2011.

Exceptions (Warringah LEP 2011 and Manly LEP 2013)

Variations (Pittwater LEP 2014)

Council may consider a variation to the requirements where:

- Council is satisfied a tree or other vegetation is dying or dead and is not required as habitat for native fauna.
- Council is satisfied a tree or other vegetation is a risk.

Trees can be removed or pruned without Council consent which are:

- In an area in which the Council has authorised their removal as part of a hazard reduction program, where that removal is necessary in order to manage risk
- Required to be removed under other legislation (including the *NSW Rural Fires Act 1997* and the *Environmental Planning and Assessment Act 1979*).
- Removed by Rural Fire Services because they pose or will pose a significant threat to access along required fire trails or to human life, buildings or other property during a bushfire.
- In a National Park within the meaning of the *National Parks and Wildlife Act 1974*.
- A tree where the immediate removal is essential for emergency access or emergency works by the Council, the State Emergency Service or a public authority.
- A tree in a container, other than in a planter box that forms part of a building, or in a container that is permanently fixed to a structure.
- A field-grown tree propagated as part of a commercial horticultural or agricultural enterprise.

Council's consent is not required for:

- The removal of any tree on the Exempt Tree Species List (see Table 1).
- Reasonable maintenance involving trimming and pruning of up to ten percent (10%) of a tree's canopy within a 12 month period (all pruning works must be in accordance with *Australian Standard AS 4373:2007 Pruning of amenity trees*).
- The pruning or removal of hedges (unless required by conditions of a development consent).
"Hedge" means groups of two (2) or more trees that:
 - (a) are planted (whether in the ground or otherwise) so as to form a hedge, and
 - (b) rise to a height of at least 2.5 metres (above existing ground level).
- The removal of a tree, where the base of the trunk of the tree at ground level, is located within two (2) metres of an existing approved building (not including decks, pergolas, sheds, patios or the like, even if they are attached to a building).
- The removal of deadwood from a tree.
- Removal of any species of parasite mistletoe or parasitic plant from any part of a tree to ameliorate the effects on the tree from such a parasite

- The removal of trees which are considered a high risk / imminent danger to life and property by a Level 5 qualified arborist. These trees can be removed without Council consent by the owner of the tree subject to the owner obtaining written confirmation from the arborist that clearly states the following:
 - a) The arborists qualifications: AQF Level 5 Arborist or equivalent;
 - b) That the tree(s) is declared a 'high risk' or is an imminent danger to life and property;
 - c) That immediate removal of the tree(s) is recommended.
 - d) A copy of the report must be sent to Council for record keeping purpose.

Notes:

A "significant tree" is a tree that is over 5.0m in height and, that impacts on the streetscape by virtue of its size, appearance, type, age, condition and heritage/cultural significance. It includes hollow-bearing trees and/or trees of conservation significance or habitat value.

The cutting down, pruning or removal by persons other than the owner must have written permission from the owner.

All work must be carried out in accordance with the Australian Standards 4373-2007 "Pruning of Amenity Trees" and in accordance with the current NSW Workcover Code of Practice - Amenity Tree Industry.

The submission of an arborist's report may be required to satisfy Council that a tree is dead or dying, or is a risk to human life or property.

The impact of development on native vegetation can be minimised by:

- Locating buildings to minimise the amount of disturbance of vegetation and landforms;
- Providing adequate distance between the dripline of the tree and development. This avoids destabilising and deoxygenating the tree, altering the drainage and helps ensure its preservation;
- Avoiding strip footings and slab on ground construction due to the impact on trees in close proximity. Suitable footing alternatives are as follows;
- Stump footings usually associated with lightweight construction on sloping sites;
- Pier and beam footings as the beams are able to span the root systems and minimise tree root damage. Pier and beam footings also allow trees to be located closer to development where no other alternative exists;
- Locating paved areas outside the dripline of trees and minimise paved area impact on the native understorey vegetation or native groundcover species;
- Minimising hard surfaces to allow water infiltration to the root system;
- Locating trenches outside the dripline of a tree;
- Adequately protecting and managing trees and vegetation during construction;
- Protecting tree trunk bases with fencing or a tree barrier during construction

For vegetation listed as threatened species, populations or ecological communities see the following for further information:

- Commonwealth legislation: Environment Protection and Biodiversity Conservation Act (1999)

- State legislation: *Threatened Species Conservation Act (1995)*

Council does not encourage the following species to be planted: *Chamaecyparis* spp. (Cypress pine) and *Cupressus* spp. (Cypress pine).

Table 1	
Exemption Species: The following Tree species are suitable for removal without consent unless identified as a Heritage item or within a Heritage area.	
SPECIES NAME	COMMON NAME
<i>Acacia baileyana</i>	Cootamundra Wattle
<i>Acacia saligna</i>	Golden Wreath Wattle, Golden Willow Wattle
<i>Acer negundo</i>	Box Elder
<i>Alnus altissima</i>	Tree of Heaven
<i>Alnus jorullensis</i>	Evergreen Alder
<i>Araucaria bidwillii</i> (Not Norfolk Island Pines)	Bunya Bunya Pine
<i>Syagrus (Arecastrum) romanzoffianum</i>	Cocos Palm
<i>Brachychiton acerifolium</i>	Illawarra Flame Tree
<i>Cassia</i> spp	Cassia
<i>Castanospermum australe</i>	Black Bean, Moreton Bay Chestnut
<i>Celtis australis</i>	Hackberry
<i>Cinnamomum camphora</i>	Camphor laurel
<i>Citharexylum spinosum</i>	Fiddlewood
<i>Eriobotrya japonica</i> , <i>Carica papaya</i> , <i>Citrus</i> spp., <i>Fortunella</i> spp. <i>Malus</i> , spp. <i>Morus</i> spp. <i>Persea</i> spp. <i>Prunus</i> spp.	All non-native fruit producing trees (Loquat, Paw Paw, Citrus, Kumquat, Apple, Mulberry, Avocado, Apricot, Almond, Cheery, Plum Peach)
<i>Cotoneaster glaucophyllus</i>	Cotoneaster
<i>Cupressus</i> spp. <i>Cupressocyparis</i> spp. <i>Chamaecyparis</i> spp.	Cypress Pine
<i>Eucalyptus nicolii</i>	Peppermint Gum
<i>Eucalyptus scoparia</i>	Wallangarra White Gum
<i>Erythrina</i> spp.	Coral Tree
All <i>Ficus</i> spp. (except <i>F. macrophylla</i> , <i>F. rubiginosa</i> , <i>F. coronata</i>)	All <i>Ficus</i> spp. (except Moreton Bay Fig, Port Jackson Fig, Sandpaper Fig)
<i>Gleditsia triacanthos</i>	Honey Locust

<i>Grevillea robusta</i>	Silky Oak
<i>Lagerstroemia</i>	Crepe Myrtle
<i>Ligustrum</i> spp.	Large and Small leaf Privet
<i>Harephyllum caffrum</i>	Kaffir Plum
<i>Jacaranda mimosifolia</i>	Jacaranda
<i>Lagunaria patersonia</i>	Norfolk Island Hibiscus
<i>Liquidambar styraciflua</i>	Liquidambar
<i>Nerium oleander</i>	Oleander
<i>Olea</i> spp.	Olive
Palms (other than <i>Livisona australis</i>)	Palms other than Cabbage Tree Palm
<i>Paraserianthes lophantha</i>	Crested Wattle
<i>Pinus</i> spp.	Pine
<i>Pittosporum</i> spp. (up to 8m)	Pittosporum
<i>Populus</i> spp.	Poplar
<i>Pyracantha angustifolia</i>	Orange Fire Thorn
<i>Raphiolepis indica</i>	Indian Hawthorn
<i>Robinia pseudoacacia</i>	False Acacia
<i>Salix</i> spp.	Willow
<i>Sapium sebiferum</i>	Chinese Tallow
<i>Schefflera actinophylla</i>	Umbrella Tree
<i>Spathodea campanulata</i>	African Tulip Tree
<i>Ulmus parviflora</i>	Chinese Elm
<i>Fraxinus griffithii</i>	Himalayan Ash
<i>Cupaniopsis laurina</i>	Tuckeroo
Any species identified as noxious under (NB) DCP refer to noxious weed listing	

REMOVAL OF TREE TESTS

1. The Unacceptable Risk Test

This is an assessment of whether the tree poses an unacceptable risk that cannot be adequately or appropriately managed by arboricultural treatment, fencing, signage, or other risk management measures. The level of risk is to be assessed and reported by a suitably qualified arborist. Other possible methods to manage the risk other than tree removal are to be considered prior to issuing consent for the removal of a tree.

2. The Diseased Condition Test

This is an assessment of whether the tree is in a diseased condition that cannot be corrected by pruning or other arboricultural treatment. The diseased condition of the tree must be confirmed in a report by a suitably qualified arborist. Options for managing the diseased condition are to be considered prior to issuing consent for the removal of a tree.

3. Remaining Life Expectancy Test

This assessment identifies the remaining life expectancy of the tree. If this is less than 5 years, consent for the removal of the tree subject to replacement planting may be issued. The remaining life expectancy of the trees is to be determined and confirmed in a report by a suitably qualified arborist.

4. Property Damage Test

This is an assessment of whether public or private property is being significantly affected by the presence/location or growth of a tree. Permission for the removal of the tree may be issued if it is shown that removal of the tree is the only option to avoid further conflict, having regard to all other abatement options. Assessment of the damage is to be carried out and reported by a suitably qualified person (e.g. road/civil engineer) in consultation with a suitably qualified arborist.

5. Public Infrastructure Works Test

If a tree is likely to succumb to major injury as a result of public infrastructure work, permission for the removal of the tree may be granted. Other alternatives such as relocation or reconfiguration of the works are to be considered. An assessment of this is to be performed by a suitably qualified person (e.g. infrastructure designer/ public works staff) in consultation with a suitably qualified arborist. A major injury is considered to be an injury that is likely to result in death of the tree, in the tree posing an unacceptable risk, or a reduction in the life expectancy of the tree to less than 5 years.

6. Proposed Driveway Crossings, Private Structures or Works Affecting Public Land Test

Permission for the removal of a tree may be granted where the tree would prevent the installation and function of a proposed driveway crossing, street awning, street balcony, or other private structure. It needs to be demonstrated that:

- the removal of the tree would maximise public benefit,
- that there is no reasonable alternative to removing the tree, and
- the Council is satisfied that the proposal would not have any adverse heritage, pedestrian, streetscape or traffic impacts.

7. Inappropriate tree species growing in unsustainable positions test.

TREE RETENTION ASSESSMENT

The purpose of the Tree Retention Assessment is to provide a clear method to assess the contribution of individual trees and groups of trees to amenity and the natural and built environments. Through doing so, a balance between the economic imperatives of land development and the preservation of natural features can be achieved.

Step 1. Assess the Sustainability of the tree.

The tree or group of trees are to be categorised into the following groups:

Greater than 40 years
from 15 to 40 years
from 5 to 15 years
less than 5 years
Dead or hazardous

Figure 1 demonstrates how a tree's sustainability is to be determined.

Step 2. Identifying landscape significance

This step involves allocating each tree to be removed or retained, a Landscape Significance rating. This is to be obtained through the categories and identifiers contained within Table 1 ahead. This rating is to then be contrasted against the Sustainability rating of the tree as shown in Figure 2 ahead, resulting in a retention value of each tree.

Step 3. Categorise each tree on its Retention value

Through the use of Figure 2 and the Landscape significance rating and tree sustainability rating, each tree to be removed or impacted upon by development is to be allocated a Retention Value.

Tree Sustainability	Landscape Significance Rating						
	1	2	3	4	5	6	7
Greater than 40 Years	High retention value						
15 to 40 years			Moderate				
5 to 15 Years				Low			
Less than 5 Years					Very low retention value		
Dead or Hazardous							

Table 1: Landscape Significance

1. Significant

The tree is listed as a Heritage Item within the WLEP 2009 with a local, state or national significance; or
The tree forms part of the curtilage of a Heritage Item and has a known or documented association with the item; or
The tree is a Commemorative Planting having been planted by an important historical person(s), or to commemorate an important historical event; or
The tree is scheduled as a Threatened Species or is a key indicator species of an Endangered Ecological Community as defined under the *Threatened Species Conservation Act 1995* (NSW) or the *Environmental Protection and Biodiversity Conservation Act (1999)*; or

The tree is a locally indigenous species, representative of the original vegetation of the area and is known as an important food, shelter, or nesting tree for an endangered or threatened fauna species; or
The tree is a remnant tree, being a tree in existence prior to development of the area; or
The tree has a very large live crown size exceeding 300m² with 70-100% foliage cover, is visible against the skyline, exhibits very good form and habitat typical of the species and makes a significant contribution to the amenity and visual character of the area by creating a sense of place or creating a sense of identity; or
The tree is visually prominent in a view from surrounding areas, being a landmark or visible from a considerable distance.

2. Very High

The tree has a strong historical association with a heritage item within or adjacent to the property and/or exemplifies a particular era or style of landscape design associated with the original development of the site; or
The tree is a locally-indigenous species and representative of the original vegetation of the area and the tree is located within a defined Wildlife Corridor or has known wildlife habitat value; or
The tree has a very large live crown size exceeding 200m², a crown density exceeding 70% Crown Cover, is very good representative of the species in terms of its form and branching habitat or is aesthetically distinctive and makes a positive contribution to the visual character and the amenity of the area.

3. High

The tree has a suspected historical association with a heritage item or landscape supported by anecdotal or visual evidence; or
The tree is a locally-indigenous species and representative of the original vegetation of the area; or
The tree has a large crown size exceeding 100m², and
Is a good representative of the species in terms of its form and branching habitat with minor deviations from the normal (e.g. crown distortion/suppression) with a crown density of at least 70% Crown Cover, and
The subject tree is visible from the street and surrounding properties and makes a positive contribution to the visual character and the amenity of the area.

4. Moderate

The tree has a medium live crown size exceeding 40m², and
The tree is a fair representative of the species, exhibiting moderate deviations from typical form (e.g. distortion/suppression) with a crown density or more than 50% Crown Cover, and
The tree makes a fair contribution to the visual character and amenity of the area, and
The tree is visible from surrounding properties, but is not visually prominent – view may be partially obscured by other vegetation or built forms, or
The tree has known or suspected historical association

5. Low

The tree has a small live crown size of less than 40m² and can be replaced within the short term with a new tree planting; or
The tree is a poor representative of the species, showing significant deviations from the typical form and branching habit with a crown density of less than 50% Crown Cover; and

The tree is not visible from the surrounding properties and makes a negligible contribution or has a negative impact on the amenity and visual character of the area.

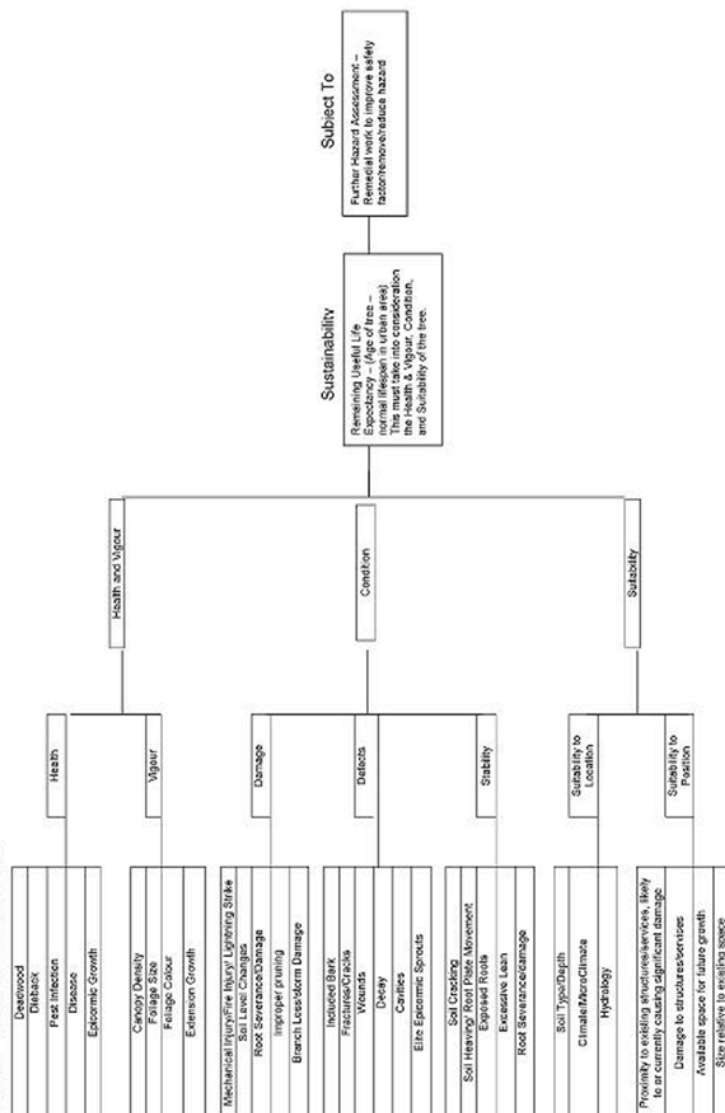
6. Very Low

The subject tree is listed as an Environment Weed Species in the relevant Local Government Area, being invasive, or a nuisance species; or
The subject tree is of a species listed in Appendix 5; or

**7.
Insignificant**

The tree is a declared Noxious Weed under the *Noxious Weed Act 1993 (NSW)*; or
The tree poses a threat to human life or property.

Figure 1 – Assessment of Sustainability



CLASS 2-9 BUILDINGS

All of the below reports and plans are to be undertaken by a suitably qualified person such as an arborist with the appropriate qualifications.

Pre-site Assessment Report

A pre-site assessment report is to show the following:

- a) Trees on and adjacent to the site to be retained or pruned
- b) Trees to be removed
- c) Protection measures to be used during construction
- d) Present condition of trees within the site, i.e. Life expectancy, retention value, hazard assessment
- e) Soil assessment may be required at this stage, where significant excavation is to take place where the exposing of sub grade soils may result in a negative impact upon the existing trees and vegetation located on the site

Impact Assessment Report

An impact assessment report is to identify and discuss the following:

- a) Location of building footprints, underground services and structures in relation to existing trees and any new trees to be planted.
- b) Site access
- c) Site establishment
- d) Temporary services
- e) Stockpiling areas
- f) Likely impact of the development on the long term conditions of trees identified in the pre-site assessment
- g) Estimated quantities (%) of loss of canopy
- h) Estimated quantities (%) of loss of roots
- i) Alterations to ground levels
- j) Protection measures to be used during construction

Tree Management Plan

A tree management plan is to show the following:

- a) Protection measures to be used during construction
- b) Approximate life cycle of the existing trees and those to be planted
- c) When and where replacement trees are to be planted
- d) How long term management of trees on the site will be achieved.

TREE PROTECTION PLAN

A Tree Protection Plan is to detail how trees to be retained are to be protected from injury and damage during construction and development works. A Tree Protection Plan is to:

- Be clear and readable
- Be prepared by a suitably qualified arborist
- Include an inventory in tabular form of the trees to be protected.

Specifically, a Tree Protection Plan is to consist of:

- a) **A composite base plan** – The purpose of this is to aid Council in its assessment of the feasibility of the protective measures and to inform the installation process on site. The plan is to be prepared on a composite base of the land survey with the layout superimposed to allow for the relationship between new and old to be clearly seen. The composite base plan must show:
 - All trees to be removed and their details such as survey numbers
 - All trees to be retained (nominated trees) and their details in tabular form including survey number, common name, species, DBH, height, and condition
 - Crown spread of all nominated trees
 - Proposed root protection area and treatment to be used

Grading and trenching details where applicable
- b) **A tree protection statement** – This is to detail measures to ensure the future health and stability of the nominated trees. This is to include details of manual and machine excavation, vehicle access, site controls on waste disposal, storage of materials, root and crown pruning, and installation of utilities.
- c) The Tree Protection Plan is also to identify any trees located on adjoining sites that may be impacted upon by the development. If these trees will be impacted upon, details of how they are to be protected are to be provided.