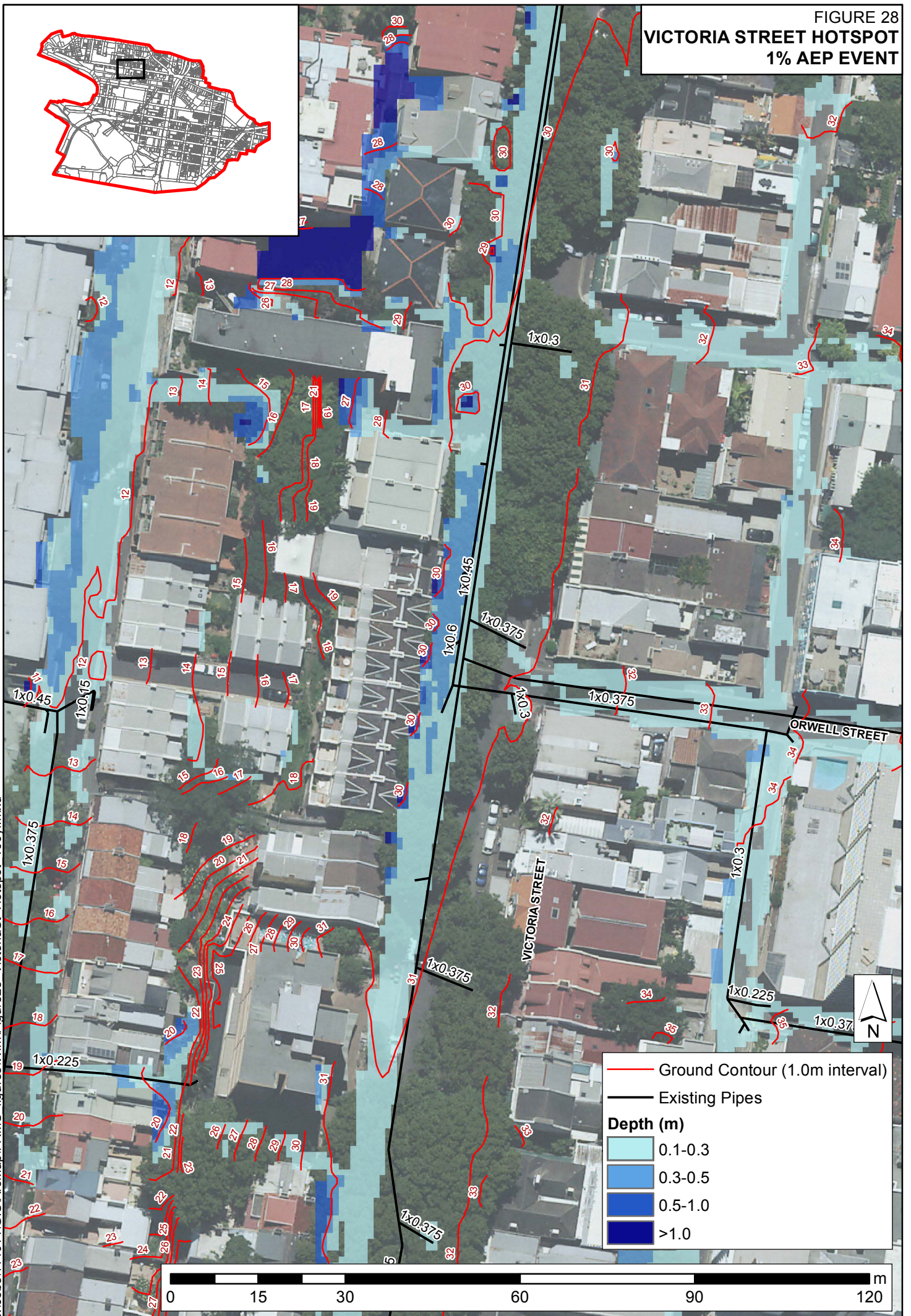
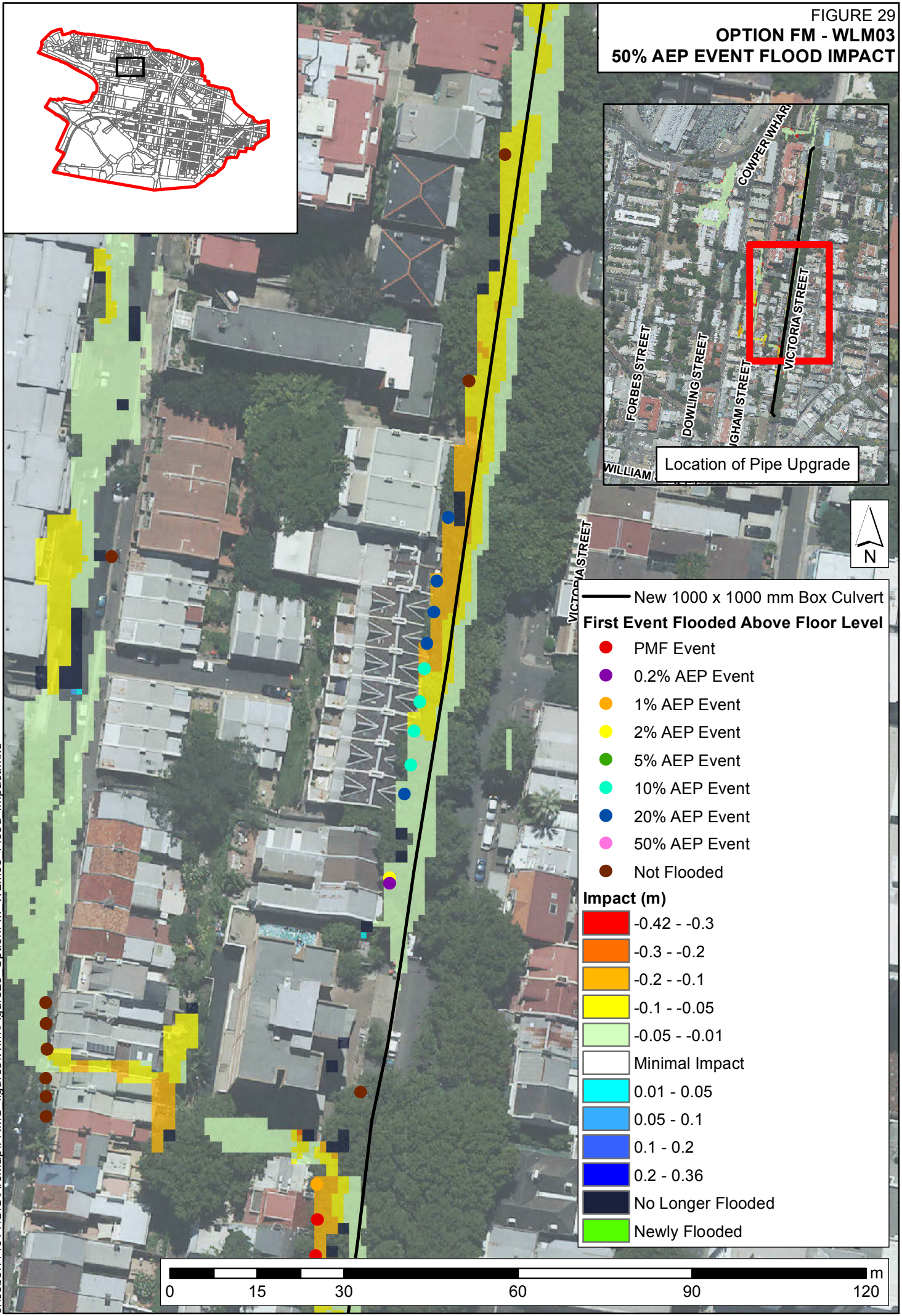


FIGURE 28  
**VICTORIA STREET HOTSPOT**  
**1% AEP EVENT**



J:\Jobs\114014\GIS\ArcMap\FRMS\_figures\Wim\Figure28\_VictoriaSt\_Hotspot\_100yr.mxd

FIGURE 29  
**OPTION FM - WLM03**  
**50% AEP EVENT FLOOD IMPACT**



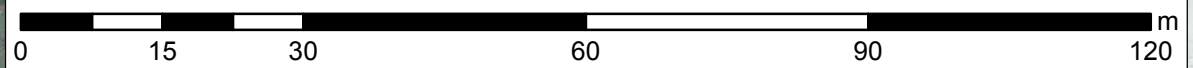
— New 1000 x 1000 mm Box Culvert

**First Event Flooded Above Floor Level**

- PMF Event
- 0.2% AEP Event
- 1% AEP Event
- 2% AEP Event
- 5% AEP Event
- 10% AEP Event
- 20% AEP Event
- 50% AEP Event
- Not Flooded

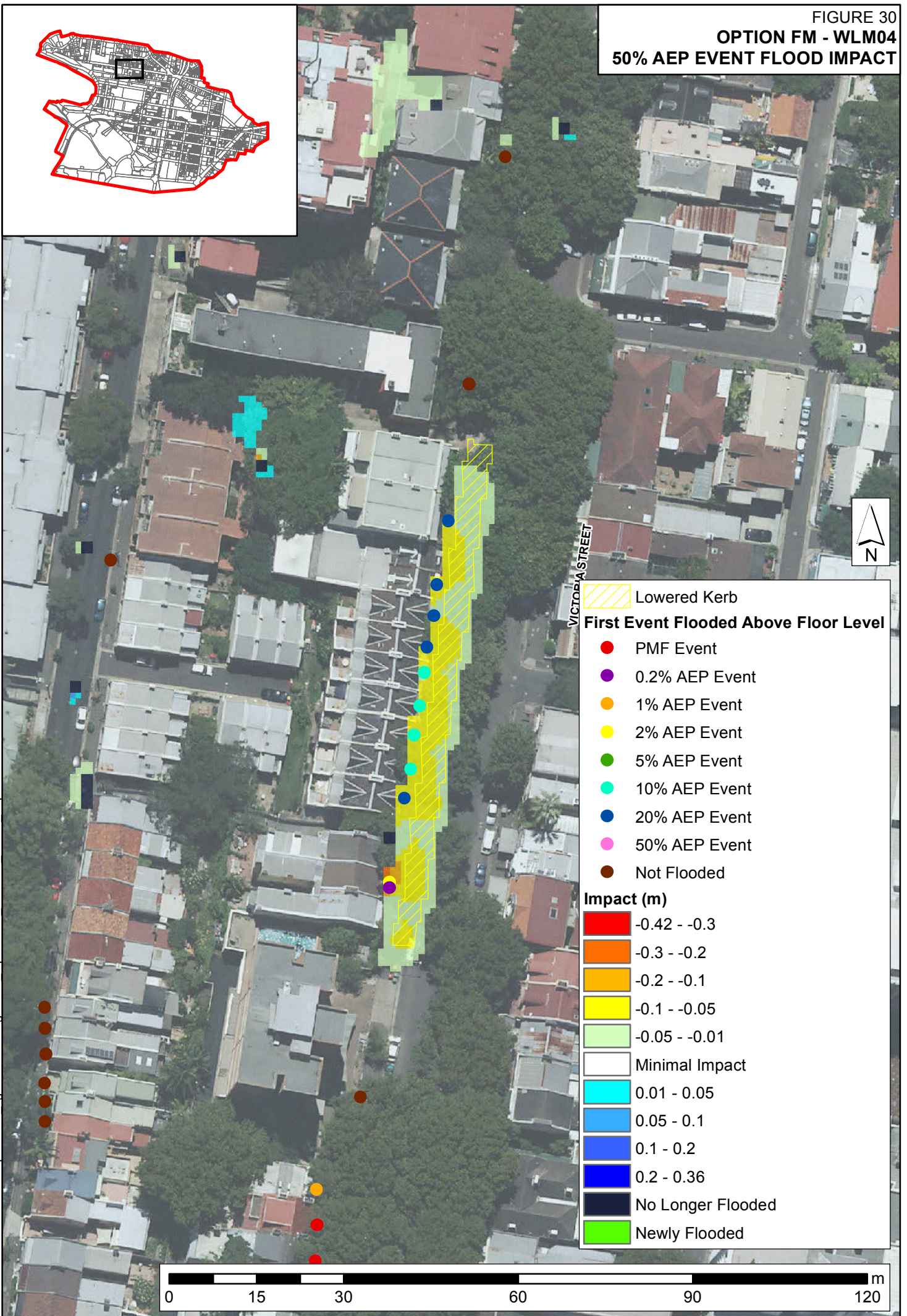
**Impact (m)**

- -0.42 - -0.3
- -0.3 - -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- Minimal Impact
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.36
- No Longer Flooded
- Newly Flooded



J:\Jobs\114014\GIS\ArcMap\FRMS\_figures\Wlm\Figure29\_OptionFM\_WLM03\_Flood\_Impact.mxd

FIGURE 30  
**OPTION FM - WLM04**  
**50% AEP EVENT FLOOD IMPACT**



**Lowered Kerb**

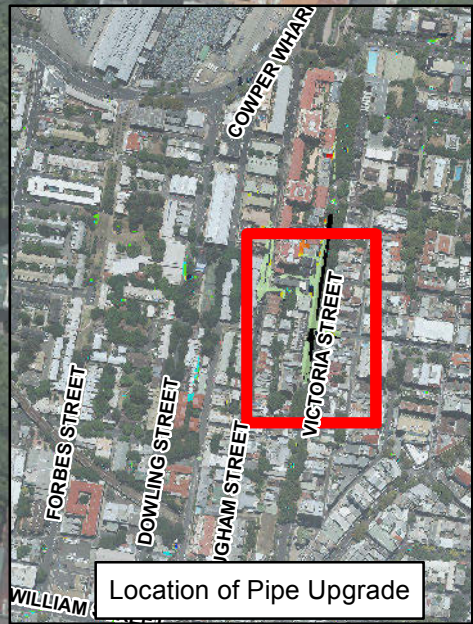
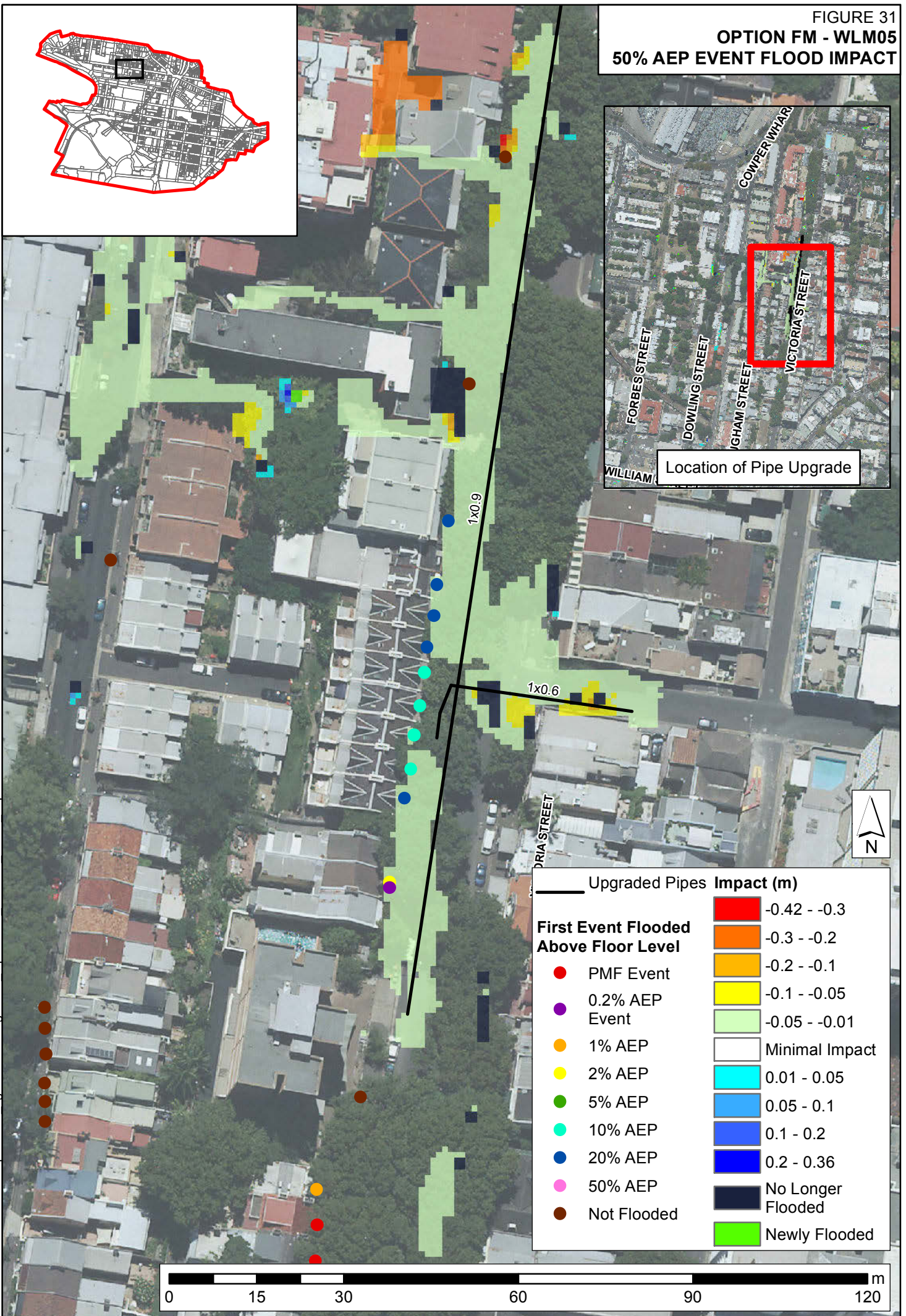
**First Event Flooded Above Floor Level**

- PMF Event
- 0.2% AEP Event
- 1% AEP Event
- 2% AEP Event
- 5% AEP Event
- 10% AEP Event
- 20% AEP Event
- 50% AEP Event
- Not Flooded

**Impact (m)**

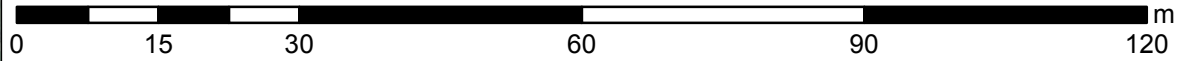
- -0.42 - -0.3
- -0.3 - -0.2
- -0.2 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- Minimal Impact
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.2
- 0.2 - 0.36
- No Longer Flooded
- Newly Flooded

FIGURE 31  
**OPTION FM - WLM05**  
**50% AEP EVENT FLOOD IMPACT**



Location of Pipe Upgrade

Upgraded Pipes		Impact (m)
—		-0.42 - -0.3
●	PMF Event	-0.3 - -0.2
●	0.2% AEP Event	-0.2 - -0.1
●	1% AEP	-0.1 - -0.05
●	2% AEP	-0.05 - -0.01
●	5% AEP	Minimal Impact
●	10% AEP	0.01 - 0.05
●	20% AEP	0.05 - 0.1
●	50% AEP	0.1 - 0.2
●	Not Flooded	0.2 - 0.36
■		No Longer Flooded
■		Newly Flooded





## APPENDIX A: GLOSSARY

Taken from the Floodplain Development Manual (April 2005 edition)

<b>acid sulfate soils</b>	Are sediments which contain sulfidic mineral pyrite which may become extremely acid following disturbance or drainage as sulfur compounds react when exposed to oxygen to form sulfuric acid. More detailed explanation and definition can be found in the NSW Government Acid Sulfate Soil Manual published by Acid Sulfate Soil Management Advisory Committee.
<b>Annual Exceedance Probability (AEP)</b>	The chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. For example, if a peak flood discharge of 500 m <sup>3</sup> /s has an AEP of 5%, it means that there is a 5% chance (that is one-in-20 chance) of a 500 m <sup>3</sup> /s or larger event occurring in any one year (see ARI).
<b>Australian Height Datum (AHD)</b>	A common national surface level datum approximately corresponding to mean sea level.
<b>Average Annual Damage (AAD)</b>	Depending on its size (or severity), each flood will cause a different amount of flood damage to a flood prone area. AAD is the average damage per year that would occur in a nominated development situation from flooding over a very long period of time.
<b>Average Recurrence Interval (ARI)</b>	The long term average number of years between the occurrence 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 20 year ARI flood event will occur on average once every 20 years. ARI is another way of expressing the likelihood of occurrence of a flood event.
<b>caravan and moveable home parks</b>	Caravans and moveable dwellings are being increasingly used for long-term and permanent accommodation purposes. Standards relating to their siting, design, construction and management can be found in the Regulations under the LG Act.
<b>catchment</b>	The land area draining through the main stream, as well as tributary streams, to a particular site. It always relates to an area above a specific location.
<b>consent authority</b>	The Council, government agency or person having the function to determine a development application for land use under the EP&A Act. The consent authority is most often the Council, however legislation or an EPI may specify a Minister or public authority (other than a Council), or the Director General of DIPNR, as having the function to determine an application.
<b>development</b>	Is defined in Part 4 of the Environmental Planning and Assessment Act (EP&A Act).  <b>infill development:</b> refers to the development of vacant blocks of land that are generally surrounded by developed properties and is permissible under the current zoning of the land. Conditions such as minimum floor levels may be imposed on infill development.  <b>new development:</b> refers to development of a completely different nature to that associated with the former land use. For example, the urban subdivision of an area previously used for rural purposes. New developments involve rezoning and typically require major extensions of existing urban services, such as roads, water supply, sewerage and electric power.

**redevelopment:** refers to rebuilding in an area. For example, as urban areas age, it may become necessary to demolish and reconstruct buildings on a relatively large scale. Redevelopment generally does not require either rezoning or major extensions to urban services.

<b>disaster plan (DISPLAN)</b>	A step by step sequence of previously agreed roles, responsibilities, functions, actions and management arrangements for the conduct of a single or series of connected emergency operations, with the object of ensuring the coordinated response by all agencies having responsibilities and functions in emergencies.
<b>discharge</b>	The rate of flow of water measured in terms of volume per unit time, for example, cubic metres per second (m <sup>3</sup> /s). Discharge is different from the speed or velocity of flow, which is a measure of how fast the water is moving for example, metres per second (m/s).
<b>ecologically sustainable development (ESD)</b>	Using, conserving and enhancing natural resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be maintained or increased. A more detailed definition is included in the Local Government Act 1993. The use of sustainability and sustainable in this manual relate to ESD.
<b>effective warning time</b>	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 farm equipment, move stock, raise furniture, evacuate people and transport their possessions.
<b>emergency management</b>	A range of measures to manage risks to communities and the environment. In the flood context it may include measures to prevent, prepare for, respond to and recover from flooding.
<b>flash flooding</b>	Flooding which is sudden and unexpected. It is often caused by sudden local or nearby heavy rainfall. Often defined as flooding which peaks within six hours of the causative rain.
<b>flood</b>	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 tsunami.
<b>flood awareness</b>	Flood awareness is an appreciation of the likely effects of flooding and a knowledge of the relevant flood warning, response and evacuation procedures.
<b>flood education</b>	Flood education seeks to provide information to raise awareness of the flood problem so as to enable individuals to understand how to manage themselves and their property in response to flood warnings and in a flood event. It invokes a state of flood readiness.
<b>flood fringe areas</b>	The remaining area of flood prone land after floodway and flood storage areas have been defined.
<b>flood liable land</b>	Is synonymous with flood prone land (i.e. land susceptible to flooding by the probable maximum flood (PMF) event). Note that the term flood liable land covers the whole of the floodplain, not just that part below the flood planning level (see flood planning area).

<b>flood mitigation standard</b>	The average recurrence interval of the flood, selected as part of the floodplain risk management process that forms the basis for physical works to modify the impacts of flooding.
<b>floodplain</b>	Area of land which is subject to inundation by floods up to and including the probable maximum flood event, that is, flood prone land.
<b>floodplain risk management options</b>	The measures that might be feasible for the management of a particular area of the floodplain. Preparation of a floodplain risk management plan requires a detailed evaluation of floodplain risk management options.
<b>floodplain risk management plan</b>	A management plan developed in accordance with the principles and guidelines in this manual. Usually includes both written and diagrammatic information describing how particular areas of flood prone land are to be used and managed to achieve defined objectives.
<b>flood plan (local)</b>	A sub-plan of a disaster plan that deals specifically with flooding. They can exist at State, Division and local levels. Local flood plans are prepared under the leadership of the State Emergency Service.
<b>flood planning area</b>	The area of land below the flood planning level and thus subject to flood related development controls. The concept of flood planning area generally supersedes the Aflood liable land@ concept in the 1986 Manual.
<b>Flood Planning Levels (FPLs)</b>	FPL=s are the combinations of flood levels (derived from significant historical flood events or floods of specific AEPs) and freeboards selected for floodplain risk management purposes, as determined in management studies and incorporated in management plans. FPLs supersede the Astandard flood event@ in the 1986 manual.
<b>flood proofing</b>	A combination of measures incorporated in the design, construction and alteration of individual buildings or structures subject to flooding, to reduce or eliminate flood damages.
<b>flood prone land</b>	Is land susceptible to flooding by the Probable Maximum Flood (PMF) event. Flood prone land is synonymous with flood liable land.
<b>flood readiness</b>	Flood readiness is an ability to react within the effective warning time.
<b>flood risk</b>	<p>Potential danger to personal safety and potential damage to property resulting from flooding. The degree of risk varies with circumstances across the full range of floods. Flood risk in this manual is divided into 3 types, existing, future and continuing risks. They are described below.</p> <p><b>existing flood risk:</b> the risk a community is exposed to as a result of its location on the floodplain.</p> <p><b>future flood risk:</b> the risk a community may be exposed to as a result of new development on the floodplain.</p> <p><b>continuing flood risk:</b> the risk a community is exposed to after floodplain risk management measures have been implemented. For a town protected by levees, the continuing flood risk is the consequences of the levees being overtopped. For an area without any floodplain risk management measures, the continuing flood risk is simply the existence of its flood exposure.</p>
<b>flood storage areas</b>	Those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood. The extent and behaviour of flood



storage areas may change with flood severity, and loss of flood storage can increase the severity of flood impacts by reducing natural flood attenuation. Hence, it is necessary to investigate a range of flood sizes before defining flood storage areas.

<b>floodway areas</b>	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 flows, or a significant increase in flood levels.
<b>freeboard</b>	Freeboard provides reasonable certainty that the risk exposure selected in deciding on a particular flood chosen as the basis for the FPL is actually provided. It is a factor of safety typically used in relation to the setting of floor levels, levee crest levels, etc. Freeboard is included in the flood planning level.
<b>habitable room</b>	<b>in a residential situation:</b> a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom.  <b>in an industrial or commercial situation:</b> an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.
<b>hazard</b>	A source of potential harm or a situation with a potential to cause loss. In relation to this manual the hazard is flooding which has the potential to cause damage to the community. Definitions of high and low hazard categories are provided in the Manual.
<b>hydraulics</b>	Term given to the study of water flow in waterways; in particular, the evaluation of flow parameters such as water level and velocity.
<b>hydrograph</b>	A graph which shows how the discharge or stage/flood level at any particular location varies with time during a flood.
<b>hydrology</b>	Term given to the study of the rainfall and runoff process; in particular, the evaluation of peak flows, flow volumes and the derivation of hydrographs for a range of floods.
<b>local overland flooding</b>	Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.
<b>local drainage</b>	Are smaller scale problems in urban areas. They are outside the definition of major drainage in this glossary.
<b>mainstream flooding</b>	Inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.
<b>major drainage</b>	Councils have discretion in determining whether urban drainage problems are associated with major or local drainage. For the purpose of this manual major drainage involves: <ul style="list-style-type: none"><li>\$ the floodplains of original watercourses (which may now be piped, channelised or diverted), or sloping areas where overland flows develop along alternative paths once system capacity is exceeded; and/or</li><li>\$ water depths generally in excess of 0.3 m (in the major system design storm as defined in the current version of Australian Rainfall and Runoff). These</li></ul>

conditions may result in danger to personal safety and property damage to both premises and vehicles; and/or

\$ major overland flow paths through developed areas outside of defined drainage reserves; and/or

\$ the potential to affect a number of buildings along the major flow path.

**mathematical/computer models**

The mathematical representation of the physical processes involved in runoff generation and stream flow. These models are often run on computers due to the complexity of the mathematical relationships between runoff, stream flow and the distribution of flows across the floodplain.

**merit approach**

The merit approach weighs social, economic, ecological and cultural impacts of land use options for different flood prone areas together with flood damage, hazard and behaviour implications, and environmental protection and well being of the State=s rivers and floodplains.

The merit approach operates at two levels. At the strategic level it allows for the consideration of social, economic, ecological, cultural and flooding issues to determine strategies for the management of future flood risk which are formulated into Council plans, policy and EPIs. At a site specific level, it involves consideration of the best way of conditioning development allowable under the floodplain risk management plan, local floodplain risk management policy and EPIs.

**minor, moderate and major flooding**

Both the State Emergency Service and the Bureau of Meteorology use the following definitions in flood warnings to give a general indication of the types of problems expected with a flood:

**minor flooding:** causes inconvenience such as closing of minor roads and the submergence of low level bridges. The lower limit of this class of flooding on the reference gauge is the initial flood level at which landholders and townspeople begin to be flooded.

**moderate flooding:** low-lying areas are inundated requiring removal of stock and/or evacuation of some houses. Main traffic routes may be covered.

**major flooding:** appreciable urban areas are flooded and/or extensive rural areas are flooded. Properties, villages and towns can be isolated.

**modification measures**

Measures that modify either the flood, the property or the response to flooding. Examples are indicated in Table 2.1 with further discussion in the Manual.

**peak discharge**

The maximum discharge occurring during a flood event.

**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.

The 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

<b>Probable Maximum Precipitation (PMP)</b>	the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to PMF estimation.
<b>probability</b>	A statistical measure of the expected chance of flooding (see AEP).
<b>risk</b>	Chance of something happening that will have an impact. It is measured in terms of consequences and likelihood. In the context of the manual it is the likelihood of consequences arising from the interaction of floods, communities and the environment.
<b>runoff</b>	The amount of rainfall which actually ends up as streamflow, also known as rainfall excess.
<b>stage</b>	Equivalent to Awater level@. Both are measured with reference to a specified datum.
<b>stage hydrograph</b>	A graph that shows how the water level at a particular location changes with time during a flood. It must be referenced to a particular datum.
<b>survey plan</b>	A plan prepared by a registered surveyor.
<b>water surface profile</b>	A graph showing the flood stage at any given location along a watercourse at a particular time.
<b>wind fetch</b>	The horizontal distance in the direction of wind over which wind waves are generated.





# Woolloomooloo Catchment Floodplain Risk Management Study and Plan

June 2014



**The City of Sydney is preparing a Floodplain Risk Management Study and Plan for the Woolloomooloo catchment area and we would like your help.**

**The study will tell us about the type of flood mitigation solutions feasible for the catchment and help us plan for and manage any flood risks.**

**Good management of flood risks can help reduce damage and improve social and economic opportunities.**



The City of Sydney has engaged WMAwater to assist with the preparation of the Woolloomooloo Floodplain Risk Management Study and Plan.

The Woolloomooloo Flood Study was completed by WMAwater in July 2013, giving the City of Sydney a better understanding of the nature of flooding in your area. The next step in the NSW Government Flood Management Process is the preparation of a Floodplain Risk Management Study and Plan. The purpose of this study and plan is to identify and recommend appropriate actions to manage flood risks in the Woolloomooloo area.

This brochure is an introduction to the Floodplain Risk Management Study and Plan and its objectives.

### Stages of the NSW Government Floodplain Management Process

1. Formation of a Committee – complete
2. Data Collection – complete
3. Flood Study – complete
4. **Floodplain Risk Management Study**
5. **Floodplain Risk Management Plan**
6. Implementation of Plan.

### Study area and flooding issues

The Woolloomooloo study area includes parts of Woolloomooloo, CBD, Potts Point, Kings Cross and Darlinghurst.

Much of the flooding in this catchment occurs due to natural depressions and low points. In the past, flooding has caused property damage and posed a hazard to people and property located near drainage areas. The Floodplain Risk Management Study and Plan currently being undertaken is to manage these flood risks.

### Have your say

We want your comments about previous flood experiences and potential mitigation options.

The local knowledge of residents and business operators, including your personal experiences of flooding is a valuable source of information.

The information you provide in the accompanying questionnaire will help the City of Sydney determine how to manage the floods in your area.

For more information about this project, please contact the City of Sydney or WMAwater via the details provided.

### Floodplain risk management options

The following list of floodplain risk management options are examples of the type of strategies that could be considered to minimise risk and reduce the impact of flooding in the catchment. These options will be investigated in more detail during the preparation of the Management Study and Plan. The general categories of these options are:

#### Flood modification options.

Examples include:

- Construction of detention/retarding basins to reduce the peak flow downstream;
- Upgrading of drainage systems, upgrade of existing pipes or construction of new pipes; and
- Regrading of roads to provide better overland flowpaths.

#### Property modification options and planning control.

Examples include:

- Building and development controls; and
- Flood-proofing measures, such as flood barriers.

#### Response modification options.

Examples include:

- Revision of the Local Disaster Plan;
- Public awareness and education – locality-based flooding information for residents;
- Public awareness and education – flooding information for schools;
- Flood depth markers at major (flood-affected) road crossings;
- Continuation of existing public awareness and education campaigns; and
- Data collection strategies for future floods.

For more information please contact:

WMAwater  
Steve Gray  
Phone 02 9299 2855  
Fax: 02 9262 6208  
[gray@wmawater.com.au](mailto:gray@wmawater.com.au)

City of Sydney  
Shah Alam  
Phone: 02 9288 5925  
[salam@cityofsydney.nsw.gov.au](mailto:salam@cityofsydney.nsw.gov.au)

# Local Resident/Land Owner Survey

The City of Sydney is carrying out a Floodplain Risk Management Study and Plan for the Woolloomooloo catchment. Please return your completed questionnaire in the reply-paid envelope by 20 July 2014. Or complete the questionnaire online at [www.cityofsydney.nsw.gov.au/floodplain-management](http://www.cityofsydney.nsw.gov.au/floodplain-management).

## 1

Please provide the following details as we may contact you to discuss some of the information you have provided us. This is optional.

Name: .....

Address: .....

Contact phone number:.....

Email: .....

## 2

What is the best way to contact you?

Letter (post)

Email

Phone

## 3

How many people regularly live/work on this property?

.....  
.....  
.....

## 4

How many of the permanent residents/workers are in age group below:

0-4 years

5-14 years

15-64 years

65+ years

## 5

What is the main language spoken at this address?

English

Other (please specify) .....

6

Is your property (please tick)

- Owner occupied       Occupied by a tenant       Business
- Other (please specify) .....

7

What type of structure is your property/business? (please tick)

- Freestanding house.....
- Apartment.....
- Dual occupancy.....
- Industrial.....
- Commercial.....

8

How long have you lived, worked at, and/or owned this property?

Years .....

Months .....

9

Have you ever experienced flooding since living and/or working in the Woolloomooloo catchment? (please tick relevant boxes)

- Yes, floodwaters entered my house/business
- Yes, floodwaters entered my yard/surrounds of my business
- Yes, the road was flooded and I couldn't get to my car
- Yes, other parts of my neighbourhood were flooded
- No, I haven't experienced flooding

10

Do you have any materials or photos you can provide to evidence the flooding you experienced? If yes, when did this flood occur?

- No
- Yes – the flooding occurred on: .....



As a local resident who may have witnessed flooding/drainage problems, you may have your own ideas about how to reduce flood risks. Which of the following do you prefer (1 = most preferred, 5 = least preferred)?

Proposed option	Preference
Retarding or detention basins (these temporarily hold water and reduce peak flood flows) — Suggested location/other comments:	1 2 3 4 5
Improved flood flow paths — Suggested location/other comments:	1 2 3 4 5
Pit and pipe upgrades — Suggested location/other comments:	1 2 3 4 5
Levee banks or flood walls — Suggested location/other comments:	1 2 3 4 5
Strategic planning and flood related development controls — Suggested location/other comments:	1 2 3 4 5
Education of the community, providing greater awareness of potential hazards — Suggested location/other comments:	1 2 3 4 5
Flood forecasting, flood warnings, evacuation planning and emergency response measures — Suggested location/other comments:	1 2 3 4 5

Other (please specify any options you think are suitable): .....

.....

.....

.....

If you have any further comments that relate to the Woolloomooloo Flood Management Study and Plan, please write them in the space below. Feel free to attach additional pages if necessary.

.....

.....

.....

**Glossary**

- Levee bank/flood wall** – an embankment or wall, usually constructed from earth or concrete, built along the banks of a watercourse to help prevent overflow of its waters.
- Retarding/detention basin** – depression in the land surface that captures and holds stormwater runoff allowing it to slowly drain out of the basin into the adjoining natural drainage line or creek.

**Privacy notice:** The information supplied will be used by the City of Sydney and its consultants to consider flooding matters within the local government area. Personal information will remain confidential, however responses may be accessed by third parties through the Government Information (Public Access) Act 2009.





<b>Table C1: Cost Estimate - Option FM-WLM01 - Woolloomooloo Trunk Pipe Upgrade</b>					
<b>Item No.</b>	<b>Description of Work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>WLM01</b>
<b>1</b>	<b>General Construction Costs</b>				
1.1	Site establishment, security fencing, facilities and disestablishment	1	item	0	0
1.2	Provision of sediment and erosion control	1	item	0	0
1.3	Construction setout and survey	1	item	0	0
1.4	Work as executed survey and documentation	1	item	0	0
1.5	Geotechnical supervision, testing and certification	1	item	0	0
	<b>SUBTOTAL (Assumed as 15% of works cost)</b>				<b>\$ 2,555,282</b>
<b>2</b>	<b>Demolition and Clearing</b>				
2.1	Clearing and grubbing	0	sq. m	11	0
2.2	Strip topsoil and stockpile for re-use (assuming 150mm depth)	0	cu. m	27	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	65	0
2.4	Pull up and dispose existing road surface	3,752	sq. m	38	141,834
	<b>SUBTOTAL</b>				<b>\$ 141,834</b>
<b>4</b>	<b>Installation of Drainage</b>				
4.8	Supply, excavate, bed, lay, joint, backfill and provide connections 1.8m dia. Pipe	401	lin. m	3564	1,427,409
4.24	Supply, excavate, bed, lay, joint, backfill and provide connections 1.8m x 1.2m culvert	141	lin. m	3456	485,716
4.26	Supply, excavate, bed, lay, joint, backfill and provide connections 2.1m x 1.2m culvert	87	lin. m	3240.00	282,514
4.28	Supply, excavate, bed, lay, joint, backfill and provide connections 2.1m x 2.1m culvert	5	lin. m	4320.00	20,419
4.30	Supply, excavate, bed, lay, joint, backfill and provide connections 2.7m x 1.2m culvert	95	lin. m	4228.00	403,530
4.31	Supply, excavate, bed, lay, joint, backfill and provide connections 2.7m x 1.5m culvert	377	lin. m	4428.00	1,670,709
4.33	Supply, excavate, bed, lay, joint, backfill and provide connections 2.4m x 2.1m culvert	71	lin. m	4336.00	309,109
4.37	Supply, excavate, bed, lay, joint, backfill and provide connections 3.0m x 1.5m culvert	59	lin. m	5508.00	322,322
4.38	Supply, excavate, bed, lay, joint, backfill and provide connections 3.0m x 1.8m culvert	205	lin. m	5708.00	1,169,510
4.39	Supply, excavate, bed, lay, joint, backfill and provide connections 2x 3.0m x 1.5m culvert	42	lin. m	5940.00	250,511
4.40	Supply, excavate, bed, lay, joint, backfill and provide connections 2x 3.0m x 2.1m culvert	394	lin. m	6140.00	2,416,222
4.49	Install new drainage/junction pit (assumed 1 pit per 5m of pipe)	375	each	4,320	1,620,000
4.51	Adjustment of existing services (nominal allowance) (assumed 50% of drainage installation cost)				7,440,427
	<b>SUBTOTAL</b>				<b>\$ 15,393,987</b>
<b>7</b>	<b>Footpath and Road Surfaces</b>				
7.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	3,752	sq. m	130	486,288
	<b>SUBTOTAL</b>				<b>\$ 486,288</b>
<b>9</b>	<b>Traffic Management</b>				
9.1	Control of traffic during works (nominal allowance) (assumed \$500 per lin.m)	1,876	lin. m	540	1,013,101
	<b>SUBTOTAL</b>				<b>\$ 1,013,101</b>
	<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 19,590,492</b>
<b>11</b>	<b>Contingencies</b>				<b>\$ -</b>
11.1	50% construction cost				<b>\$ 9,795,246</b>

	<b>CONSTRUCTION TOTAL, exc. GST</b>				<b>\$ 29,385,738</b>
	<b>GST</b>				<b>\$ 2,938,574</b>
	<b>CONSTRUCTION TOTAL, inc. GST</b>				<b>\$ 32,324,311</b>
	<b>CONSTRUCTION TOTAL, rounded</b>				<b>\$ 32,324,300</b>
<b>11</b>	<b>MAINTENANCE</b>				
<b>11.1</b>	<b>Maintenance of mitigation option</b>		item		<b>\$ 18,761</b>

<b>Table C2: Cost Estimate - Option FM-WLM02 -Earl Place Pipe Upgrade</b>					
<b>Item No.</b>	<b>Description of Work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>WLM02</b>
<b>1</b>	<b>General Construction Costs</b>				
1.1	Site establishment, security fencing, facilities and disestablishment	1	item	0	0
1.2	Provision of sediment and erosion control	1	item	0	0
1.3	Construction setout and survey	1	item	0	0
1.4	Work as executed survey and documentation	1	item	0	0
1.5	Geotechnical supervision, testing and certification	1	item	0	0
	<b>SUBTOTAL (Assumed as 15% of works cost)</b>				<b>\$ 46,259</b>
<b>2</b>	<b>Demolition and Clearing</b>				
2.1	Clearing and grubbing	0	sq. m	11	0
2.2	Strip topsoil and stockpile for re-use (assuming 150mm depth)	0	cu. m	27	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	65	0
2.4	Pull up and dispose existing road surface	256	sq. m	38	9,666
	<b>SUBTOTAL</b>				<b>\$ 9,666</b>
<b>4</b>	<b>Installation of Drainage</b>				
4.3	Supply, excavate, bed, lay, joint, backfill and provide connections 0.9m dia. Pipe	128	lin. m	1,296	165,710
4.49	Install new drainage/junction pit (assumed 1 pit per 50m of pipe)	3	each	4,320	12,960
4.51	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost)				19,654
	<b>SUBTOTAL</b>				<b>\$ 196,537</b>
<b>7</b>	<b>Footpath and Road Surfaces</b>				
7.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	256	sq. m	130	33,142
	<b>SUBTOTAL</b>				<b>\$ 33,142</b>
<b>9</b>	<b>Traffic Management</b>				
9.1	Control of traffic during works (nominal allowance) (assumed \$500 per lin.m)	128	lin. m	540	69,046
	<b>SUBTOTAL</b>				<b>\$ 69,046</b>
	<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 354,651</b>
<b>11</b>	<b>Contingencies</b>				<b>\$ -</b>
11.1	50% construction cost				<b>\$ 177,325</b>
	<b>CONSTRUCTION TOTAL, exc. GST</b>				<b>\$ 531,976</b>
	<b>GST</b>				<b>\$ 53,198</b>
	<b>CONSTRUCTION TOTAL, inc. GST</b>				<b>\$ 585,174</b>
	<b>CONSTRUCTION TOTAL, rounded</b>				<b>\$ 585,200</b>
<b>11</b>	<b>MAINTENANCE</b>				
11.1	Maintenance of mitigation option		item		<b>\$ 1,279</b>

<b>Table C3: Cost Estimate - Option FM-WLM03 -Victoria Street Pipe Upgrade</b>					
<b>Item No.</b>	<b>Description of Work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>WLM03</b>
<b>1</b>	<b>General Construction Costs</b>				
1.1	Site establishment, security fencing, facilities and disestablishment	1	item	0	0
1.2	Provision of sediment and erosion control	1	item	0	0
1.3	Construction setout and survey	1	item	0	0
1.4	Work as executed survey and documentation	1	item	0	0
1.5	Geotechnical supervision, testing and certification	1	item	0	0
	<b>SUBTOTAL (Assumed as 15% of works cost)</b>				<b>\$ 276,331</b>
<b>2</b>	<b>Demolition and Clearing</b>				
2.1	Clearing and grubbing	0	sq. m	11	0
2.2	Strip topsoil and stockpile for re-use (assuming 150mm depth)	0	cu. m	27	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	65	0
2.4	Pull up and dispose existing road surface	1,062	sq. m	38	40,159
	<b>SUBTOTAL</b>				<b>\$ 40,159</b>
<b>4</b>	<b>Installation of Drainage</b>				
4.20	Supply, excavate, bed, lay, joint, backfill and provide connections 1.0m x 1.0m culvert	531	lin. m	2,268	1,204,762
4.49	Install new drainage/junction pit (assumed 1 pit per 50m of pipe)	11	each	4,320	47,520
4.51	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost)				33,516
	<b>SUBTOTAL</b>				<b>\$ 1,377,510</b>
<b>7</b>	<b>Footpath and Road Surfaces</b>				
7.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	1,062	sq. m	130	137,687
	<b>SUBTOTAL</b>				<b>\$ 137,687</b>
<b>9</b>	<b>Traffic Management</b>				
9.1	Control of traffic during works (nominal allowance) (assumed \$500 per lin.m)	531	lin. m	540	286,848
	<b>SUBTOTAL</b>				<b>\$ 286,848</b>
	<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 2,118,534</b>
<b>11</b>	<b>Contingencies</b>				<b>\$ -</b>
11.1	50% construction cost				<b>\$ 1,059,267</b>
	<b>CONSTRUCTION TOTAL, exc. GST</b>				<b>\$ 3,177,801</b>
	<b>GST</b>				<b>\$ 317,780</b>
	<b>CONSTRUCTION TOTAL, inc. GST</b>				<b>\$ 3,495,581</b>
	<b>CONSTRUCTION TOTAL, rounded</b>				<b>\$ 3,495,600</b>
<b>11</b>	<b>MAINTENANCE</b>				
11.1	Maintenance of mitigation option		item		<b>\$ 5,312</b>

<b>Table C5: Cost Estimate - Option FM-WLM05 -Victoria Street Pipe Upgrade</b>					
<b>Item No.</b>	<b>Description of Work</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>WLM05</b>
<b>1</b>	<b>General Construction Costs</b>				
1.1	Site establishment, security fencing, facilities and disestablishment	1	item	0	0
1.2	Provision of sediment and erosion control	1	item	0	0
1.3	Construction setout and survey	1	item	0	0
1.4	Work as executed survey and documentation	1	item	0	0
1.5	Geotechnical supervision, testing and certification	1	item	0	0
	<b>SUBTOTAL (Assumed as 15% of works cost)</b>				<b>\$ 79,799</b>
<b>2</b>	<b>Demolition and Clearing</b>				
2.1	Clearing and grubbing	0	sq. m	11	0
2.2	Strip topsoil and stockpile for re-use (assuming 150mm depth)	0	cu. m	27	0
2.3	Dispose of excess topsoil (nominal 10% allowance)	0	cu. m	65	0
2.4	Pull up and dispose existing road surface	450	sq. m	38	17,010
	<b>SUBTOTAL</b>				<b>\$ 17,010</b>
<b>4</b>	<b>Installation of Drainage</b>				
4.2	Supply, excavate, bed, lay, joint, backfill and provide connections 0.6m dia. Pipe	35	lin. m	1,053	36,855
4.3	Supply, excavate, bed, lay, joint, backfill and provide connections 0.9m dia. Pipe	190	lin. m	1,296	246,240
4.49	Install new drainage/junction pit (assumed 1 pit per 50m of pipe)	5	each	4,320	21,600
4.51	Adjustment of existing services (nominal allowance) (assumed 10% of drainage installation cost)				33,516
	<b>SUBTOTAL</b>				<b>\$ 335,165</b>
<b>7</b>	<b>Footpath and Road Surfaces</b>				
7.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	450	sq. m	130	58,320
	<b>SUBTOTAL</b>				<b>\$ 58,320</b>
<b>9</b>	<b>Traffic Management</b>				
9.1	Control of traffic during works (nominal allowance) (assumed \$500 per lin.m)	225	lin. m	540	121,500
	<b>SUBTOTAL</b>				<b>\$ 121,500</b>
	<b>CONSTRUCTION SUBTOTAL</b>				<b>\$ 611,794</b>
11	<b>Contingencies</b>				<b>\$ -</b>
11.1	50% construction cost				<b>\$ 305,897</b>
	<b>CONSTRUCTION TOTAL, exc. GST</b>				<b>\$ 917,691</b>
	<b>GST</b>				<b>\$ 91,769</b>
	<b>CONSTRUCTION TOTAL, inc. GST</b>				<b>\$ 1,009,460</b>
	<b>CONSTRUCTION TOTAL, rounded</b>				<b>\$ 1,009,500</b>
<b>11</b>	<b>MAINTENANCE</b>				



11.1	Maintenance of mitigation option		item		\$	2,250



**Table D1: Residential Tangible Damages - Option FM - WLM01**

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Total Damages for Event	Ave. Damage Per Flood Affected Property
<b>PMF</b>	202	155	\$ 8,608,800	\$ 42,600
<b>1.0%</b>	143	48	\$ 3,027,200	\$ 21,200
<b>2.0%</b>	125	33	\$ 2,284,700	\$ 18,300
<b>5.0%</b>	107	26	\$ 1,856,300	\$ 17,300
<b>10.0%</b>	99	21	\$ 1,483,700	\$ 15,000
<b>20.0%</b>	92	11	\$ 949,900	\$ 10,300
<b>50.0%</b>	82	5	\$ 511,800	\$ 6,200
<b>Average Annual Damages (AAD)</b>			\$ -	\$ -

**Table D2: Commercial Tangible Damages - Option FM - WLM01**

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Total Damages for Event	Ave. Damage Per Flood Affected Property
<b>PMF</b>	112	92	\$ 15,124,600	\$ 135,000
<b>1.0%</b>	83	42	\$ 6,317,700	\$ 76,100
<b>2.0%</b>	82	34	\$ 5,287,200	\$ 64,500
<b>5.0%</b>	76	28	\$ 4,319,000	\$ 56,800
<b>10.0%</b>	74	13	\$ 2,273,300	\$ 30,700
<b>20.0%</b>	68	10	\$ 1,804,700	\$ 26,500
<b>50.0%</b>	60	6	\$ 1,133,400	\$ 18,900
<b>Average Annual Damages (AAD)</b>			\$ -	\$ -

**Table D3: Combined Tangible Damages - Option FM - WLM01**

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Total Damages for Event	Ave. Damage Per Flood Affected Property
<b>PMF</b>	314	247	\$ 23,733,400	\$ 75,600
<b>1%</b>	226	90	\$ 9,344,900	\$ 41,300
<b>2%</b>	207	67	\$ 7,571,900	\$ 36,600
<b>5%</b>	183	54	\$ 6,175,300	\$ 33,700
<b>10%</b>	173	34	\$ 3,757,000	\$ 21,700
<b>20%</b>	160	21	\$ 2,754,000	\$ 17,200
<b>50%</b>	142	11	\$ 1,645,200	\$ 11,600
<b>Average Annual Damages (AAD)</b>			\$ -	\$ -



FIGURE E1  
SURVEYED PROPERTIES  
WOOLLOOMOOLOO CATCHMENT



Floor Level Survey (undertaken in 2012 as part of Woolloomooloo Flood Study)

Parcel Tag as on Council cadastre (GIS Tag)	Photograph name	Total number of buildings	Street Number	Street Name	Indicative Ground Level (m AHD)	RESIDENTIAL BUILDINGS						NON RESIDENTIAL BUILDINGS					
						Lowest Habitable Floor Level (m AHD)	Single (S) or Double storey (D)	Do people live on the Ground Floor (Y or N)	House Size - Small (S), Medium (M), Large (L)	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)	Type (Commercial = C, Industrial = I, Public = P)	Name and Nature of Use/Business	Lowest Floor Level (m AHD)	Approximate Floor Area (m <sup>2</sup> )	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)
524835	Bland-032-524835	1	32	Bland Street	1.80	2.01	D	Y	S	P	B						
524834	Bland-030-524834	1	30	Bland Street	1.79	2.01	D	Y	S	P	B						
524833	Bland-028-524833	1	28	Bland Street	1.83	2.01	D	Y	S	P	B						
524832	Bland-026-524832	1	26	Bland Street	1.85	2.01	D	Y	S	P	B						
524831	Bland-024-524831	1	24	Bland Street	1.88	2.06	D	Y	S	P	B						
524830	Bland-022-524830	1	22	Bland Street	1.90	2.06	D	Y	S	P	B						
524829	Bland-020-524829	1	20	Bland Street	1.93	2.04	D	Y	S	P	B						
524828	Bland-018-524828	1	18	Bland Street	1.94	2.11	D	Y	S	P	B						
524827	Bland-016-524827	1	16	Bland Street	1.95	2.12	D	Y	S	P	B						
524826	Bland-014-524826	1	14	Bland Street	1.96	2.14	D	Y	S	P	B						
525065	Bourke-009-525065	1	9	Bourke Street	1.95	2.56	D	Y	S	P	B						
525123	Bourke-089-089A-525123	1	89-89A	Bourke Street	2.27	2.67	D	Y	M	P	B						
525121	Bourke-085-087-525121	1	85-87	Bourke Street	2.02							C	Disused Garage	2.03	350	S	B
525119	Bourke-083A-525119	1	83A	Bourke Street	2.12	2.60	D	Y	S	P	B						
525117	Bourke-083-525117	1	83	Bourke Street	2.11	2.69 (Approx)	D	Y	S	P	B						
525115	Bourke-081-525115	1	81	Bourke Street	2.06	2.65	D	Y	S	P	B						
525064	Bourke-008-525064	1	8	Bourke Street	1.62	1.85	D	Y	S	P	B						
525113	Bourke-079-525113	1	79	Bourke Street	2.04	2.60	D	Y	S	P	B						
525112	Bourke-077-525112	1	77	Bourke Street	1.98	2.59	D	Y	S	P	B						
525111	Bourke-075-525111	1	75	Bourke Street	2.59							P	City of Sydney Woolloomooloo	2.64	950	S	B
525063	Bourke-006-525063	1	6	Bourke Street	1.70	1.86	D	Y	S	P	B						
598557	Bourke-004A-598557	1	4A	Bourke Street	1.88							C	Storage Room at Rear of Hotel	2.12	30	S	C
525062	Bourke-004-525062	1	4	Bourke Street	1.72	1.69	D	Y	S	P	B						
525085	Bourke-024-028-525085	2	24-28	Bourke Street	1.78	2.51	D	Y	L	S	B						
525079	Bourke-022-525079	1	22	Bourke Street	1.77	2.13	D	Y	S	P	B						
525082	Bourke-023-039-525082	1	23-39	Bourke Street	1.77	3.47	D	Y	L	S	B						
525078	Bourke-021-525078	1	21	Bourke Street	1.76	2.11	D	Y	S	P	B						
525077	Bourke-020-525077	1	20	Bourke Street	1.78	2.15	D	Y	S	P	B						
525075	Bourke-019-525075	1	19	Bourke Street	1.80	2.02	D	Y	S	P	B						
525074	Bourke-018-525074	1	18	Bourke Street	1.72	2.12	D	Y	S	P	B						
525059	Bourke-001-007-525059	1	001-007	Bourke Street	2.13							C	The Bells Hotel	2.20	300	S	B
525073	Bourke-017-525073	1	17	Bourke Street	1.83	2.09	D	Y	S	P	B						
525072	Bourke-016-525072	1	16	Bourke Street	1.73	1.99	D	Y	S	P	B						
525071	Bourke-015-525071	1	15	Bourke Street	1.86	2.04	D	Y	S	P	B						
525070	Bourke-014-525070	1	14	Bourke Street	1.67	1.92	D	Y	S	P	B						
525069	Bourke-013-525069	1	13	Bourke Street	1.87	2.01	D	Y	S	P	B						
525068	Bourke-012-525068	1	12	Bourke Street	1.61	1.93	D	Y	S	P	B						
525067	Bourke-011-525067	1	11	Bourke Street	1.93	2.56	D	Y	S	P	B						
525066	Bourke-010-525066	1	10	Bourke Street	1.61	1.77	D	Y	S	P	B						
525599	Brougham-066-525599	1	66	Brougham Street	17.75	19.59	D	Y	M	P	B						
624285	Brougham-079-085-624285-Rear	1	79-85	Brougham Street	6.46	6.54	4	Y	L	S	B						
525608	Brougham-074-525608	1	74	Brougham Street	19.37	19.49	D	Y	S	P	B						
525606	Brougham-072-525606	1	72	Brougham Street	19.10	19.18	D	Y	S	P	B						
525603	Brougham-070-525603	1	70	Brougham Street	19.11	19.11	D	Y	S	P	B						
525601	Brougham-068A-525601	1	68A	Brougham Street	18.53	19.60	D	Y	M	P	B						
525600	Brougham-068-525600	1	68	Brougham Street	18.23	19.56	D	Y	M	P	B						
532009	Brougham-036-042-532009	1	36	Brougham Street	12.05	13.92	3	Y	M	S	B						
512435	Cathedral-098-512435	1	98	Cathedral Street	4.64		3	N	M	S	B	C	Benedictus Media	4.78	100	S	B
512434	Cathedral-096-512434	1	96	Cathedral Street	4.65		3	N	M	S	B	C	?	4.76	100	S	B
512433	Cathedral-094-512433	1	94	Cathedral Street	4.70		3	N	M	S	B	C	Travel on Q	4.85	100	S	B
512432	Cathedral-092-512432	1	92	Cathedral Street	4.75		3	N	M	S	B	C	Kenstrom Design	4.86	100	S	B
512431	Cathedral-090-512431	1	90	Cathedral Street	4.80		3	N	M	S	B	C	Marinassess	4.94	100	S	B
525904	Cathedral-087-091-525904	2	87-91	Cathedral Street	4.78		3	N	L	S	B	C	Colliers Sandwich Shop/Landmark	5.00	750	S	B
512429	Cathedral-088-512429	1	88	Cathedral Street	4.89		3	N	L	S	B	C	Luxe Apartments	4.94	190	S	B
627793	Cathedral-122-627793	1	122	Cathedral Street	4.38	4.69	3	Y	S	P	B						
627792	Cathedral-120-627792	1	120	Cathedral Street	4.37		3					C	Gadget Group Publishing	4.68	120	P	B
525923	Cathedral-118-525923	1	118	Cathedral Street	4.33		D					C	Australegal Solicitors	4.50	120	P	B
525920	Cathedral-116-525920	1	116	Cathedral Street	4.30	4.49	D	Y	S	P	B						
525918	Cathedral-114-525918	1	114	Cathedral Street	4.30	4.63	D	Y	S	P	B						
525917	Cathedral-112-525917	1	112	Cathedral Street	4.31	4.48 (Approx)	D	Y	S	P	B						
525916	Cathedral-110-525916	1	110	Cathedral Street	4.23	4.48 (Approx)	D	Y	S	P	B						
525913	Cathedral-108-525913	1	108	Cathedral Street	4.22		D					C	Octet House	4.49	160	P	B
512438	Cathedral-104-512438	1	104	Cathedral Street	4.43		3	N	M	S	B	C	Soho Galleries	4.61	120	S	B
525910	Cathedral-103-525910	1	103	Cathedral Street	4.58	4.94	3	Y	L	P	B						
512437	Cathedral-102-512437	1	102	Cathedral Street	4.55		3	N	M	S	B	C	Hairdresser	4.69	100	S	B



Floor Level Survey (undertaken in 2012 as part of Woolloomooloo Flood Study)

						RESIDENTIAL BUILDINGS						NON RESIDENTIAL BUILDINGS					
Parcel Tag as on Council cadastre (GIS Tag)	Photograph name	Total number of buildings	Street Number	Street Name	Indicative Ground Level (m AHD)	Lowest Habitable Floor Level (m AHD)	Single (S) or Double storey (D)	Do people live on the Ground Floor (Y or N)	House Size - Small (S), Medium (M), Large (L)	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)	Type (Commercial = C, Industrial = I, Public = P)	Name and Nature of Use/Business	Lowest Floor Level (m AHD)	Approximate Floor Area (m <sup>2</sup> )	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)
529263	Liverpool-265-277-529263-2	1	265-277	Liverpool Street	23.44		D	N	M	S	B	C	The Grand Social Fashion	23.63	720	S	B
529595	McElhone-066-068-529595	1	66-68	McElhone Street	7.44							C	St Columbkille's Catholic Church	88 (Approx)	260	P	B
529580	McElhone-044-050-529580	2	44-50	McElhone Street	6.70							C	Mariners Court Hotel	6.97	980	S	B
529577	McElhone-036-042-529577	1	36-42	McElhone Street	6.28	7.65 (Approx)	4	Y	L	S	B						
522873	Nicholson-084-522873	1	84	Nicholson Street	1.94							C	Gallery	2.16	100	S	B
522872	Nicholson-082-522872	1	82	Nicholson Street	1.98	2.11	D	Y	S	P	B						
522871	Nicholson-080-522871	1	80	Nicholson Street	1.99	2.17	D	Y	S	P	B						
522870	Nicholson-078-522870	1	78	Nicholson Street	2.00	2.17	D	Y	S	P	B						
522869	Nicholson-076-522869	1	76	Nicholson Street	2.00	2.16	D	Y	S	P	B						
522868	Nicholson-074-522868	1	74	Nicholson Street	2.02	2.17	D	Y	S	P	B						
522867	Nicholson-072-522867	1	72	Nicholson Street	2.02	2.17	D	Y	S	P	B						
522866	Nicholson-070-522866	1	70	Nicholson Street	2.07	2.23	D	Y	S	P	B						
522865	Nicholson-068-522865	1	68	Nicholson Street	2.05	2.19	D	Y	S	P	B						
522864	Nicholson-060-066-522864	Nil	60-66	Nicholson Street	2.06	Vacant											
522863	Nicholson-056-058-522863	Nil	56-58	Nicholson Street	1.95	Vacant											
522861	Nicholson-036-522861	1	36	Nicholson Street	2.01	2.41	D	Y	S	S	B						
522859	Nicholson-034-522859	1	34	Nicholson Street	2.00	2.39	D	Y	S	S	B						
613674	Nicholson-032-613674	1	32	Nicholson Street	2.02	2.39	D	Y	S	S	B						
522857	Nicholson-031-522857	1	31	Nicholson Street	1.90							P	Juanita Nielson Community Centre	2.07	700	S	B
613673	Nicholson-030-613673	1	30	Nicholson Street	2.02	2.39	D	Y	S	S	B						
522855	Nicholson-028-522855	1	28	Nicholson Street	1.96	2.36	D	Y	S	S	B						
613671	Nicholson-026-613671	1	26	Nicholson Street	1.97	2.38	D	Y	S	S	B						
522853	Nicholson-024-522853	1	24	Nicholson Street	2.00	2.37	D	Y	S	S	B						
522850	Nicholson-022-522850	1	22	Nicholson Street	1.98	2.38	D	Y	S	S	B						
522842	Nicholson-011-522842	1	11	Nicholson Street	1.90							I	Substation #104	2.00	80	S	B
523530	Palmer-011-025-523530	1	011-025	Palmer Street	2.33							C	Storage King	2.32	820	S	B
531130	Printers-002-531130	1	2	Printers Lane	18.08							C	Together Creative	18.31	60	S	B
528584	Printers-001-528584	1	1	Printers Lane	17.82	18.46	4	Y	L	S	B						
530444	Riley-095-530444	1	95	Riley Street	13.13							C	Café Pacifico Mexican Cantina	13.53	330	S	B
530443	Riley-094-530443	1	94	Riley Street	16.61	17.19	D	Y	M	P	B						
530440	Riley-089-091-530440	1	89-91	Riley Street	12.89							C	Food Society	12.16	420	S	B
530370	Riley-008-530370	1	8	Riley Street	5.53	5.70	D	Y	S	P	B						
530400	Riley-077-530400	1	77	Riley Street	12.12	13.36	8	Y	L	S	B						
530369	Riley-006-530369	1	6	Riley Street	5.52	5.69	D	Y	S	P	B						
533546	Riley-054-056-533546	Nil	54-56	Riley Street	12.09	Vacant						C	Hertz Car Rental	12.12	Nil	S	
530388	Riley-047-051-530388	1	47-51	Riley Street	8.75							C	Rose (Building consultants)	9.03	570	S	B
530385	Riley-043-045-530385	1	43-45	Riley Street	7.71							C	Eastern Suburbs Automotive	7.80	220	S	B
530384	Riley-041-530384	1	41	Riley Street	7.37		3	N	M	P	B	C	Gallery V	7.60	200	P	B
530383	Riley-033-039-530383	1	33-39	Riley Street	7.00							C	Real Time Australia	7.12	370	P	B
530368	Riley-002-004-530368	1	2	Riley Street	4.94	5.37	3	Y	L	S	B	C	The Villa	5.37	390	S	B
530375	Riley-016-530375	1	16	Riley Street	5.67	5.82	D	Y	S	P	B						
530374	Riley-014-530374	1	14	Riley Street	5.60	5.98	D	Y	S	P	B						
530373	Riley-013-530373	1	13	Riley Street	5.66							P	City of Sydney Building	5.75	170	S	B
530475	Riley-121-125-530475	1	121-125	Riley Street	16.84	16.94	5	N	L	S	B	C	City European Auto	16.94	400	S	B
530372	Riley-012-530372	1	12	Riley Street	5.57	5.97	D	Y	S	P	B						
530471	Riley-119-530471	1	119	Riley Street	16.38	16.83	D	Y	M	P	B						
530371	Riley-010-530371	1	10	Riley Street	5.53	5.57	D	Y	S	S	B						
531138	Seale-024-531138	1	24	Seale Street	19.94	19.99	D	Y	M	P	B						
531136	Seale-022-531136	1	22	Seale Street	20.04	20.22	D	Y	M	P	B						
531134	Seale-020-531134	2	20	Seale Street	17.73	17.87	D	Y	M	P	B						
531132	Seale-018-531132	1	18	Seale Street	20.65	20.93	D	Y	M	P	B						
516977	Sir J Young-050-058-516977	1	50-58	John Young Cresc	3.86							C	Elephant Café and Bar and Backpac	5.21	560	P	B
531393	Stanley-003A-005-531393	1	3A-5	Stanley Lane	12.63	12.88	3	Y	L	S	B						
531459	Stanley-065-531459	1	65	Stanley Street	15.49	15.87	D	Y	M	P	B						
531456	Stanley-063-531456	1	63	Stanley Street	15.37	15.71	D	Y	M	P	B						
531454	Stanley-062-531454	1	62	Stanley Street	15.27	15.47						C	Restaurant - available for lease		110	P	B
531452	Stanley-061-531452	1	61	Stanley Street	15.32	15.93	D	Y	M	P	B						
531450	Stanley-059-531450	1	59	Stanley Street	15.19	15.50	D	Y	M	P	B						
531448	Stanley-058-531448	1	58	Stanley Street	15.00	15.10	D	Y	M	S	B						
531447	Stanley-057-531447	1	57	Stanley Street	15.16	15.49	D	Y	M	P	B						
531446	Stanley-056-531446	1	56	Stanley Street	14.87	14.97	D	Y	M	S	B						
531445	Stanley-055-531445	1	55	Stanley Street	15.07							C	Kalantzis Lawyers	15.41	70	P	B
531443	Stanley-053-531443	1	53	Stanley Street	15.06	15.40	D	Y	M	P	B						
531440	Stanley-051-531440	1	51	Stanley Street	15.08	15.43	D	Y	M	P	B						
531439	Stanley-049-531439	1	49	Stanley Street	15.12	15.44	D	Y	M	P	B						



Floor Level Survey (undertaken in 2012 as part of Woolloomooloo Flood Study)

Parcel Tag as on Council cadastre (GIS Tag)	Photograph name	Total number of buildings	Street Number	Street Name	Indicative Ground Level (m AHD)	RESIDENTIAL BUILDINGS						NON RESIDENTIAL BUILDINGS					
						Lowest Habitable Floor Level (m AHD)	Single (S) or Double storey (D)	Do people live on the Ground Floor (Y or N)	House Size - Small (S), Medium (M), Large (L)	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)	Type (Commercial = C, Industrial = I, Public = P)	Name and Nature of Use/Business	Lowest Floor Level (m AHD)	Approximate Floor Area (m <sup>2</sup> )	Floor Construction Pier (P) or Slab (S) Other describe	Wall Construction Brick, Stone or Rendered (B), Clad (C), Mixed (M)
596915	Stanley-047-596915	1	47	Stanley Street	15.12	15.44	D	Y	M	P	B						
596914	Stanley-045-596914	1	45	Stanley Street	15.21	15.48	D	Y	M	P	B						
531707	Thomson-008-531707	1	8	Thomson Street	38.50	39.14	3	Y	M	P	B						
531711	Thomson-016-531711	1	16	Thomson Street	38.63	39.45	D	Y	M	P	B						
531710	Thomson-014-531710	1	14	Thomson Street	38.63	39.42	D	Y	M	P	B						
531709	Thomson-012-531709	1	12	Thomson Street	38.60	39.42	D	Y	M	P	B						
531708	Thomson-010-531708	1	10	Thomson Street	38.55	39.44	D	Y	M	P	B						
634063	Victoria-075-634063	1	75	Victoria Street	25.77	23.78	3	Y	M	S	B						
632506	Victoria-065-632506	1	65	Victoria Street	24.22	22.51 (Approx	4	Y	M	S	B						
532144	Victoria-171-173-532144	1	171-173	Victoria Street	32.00							C	Piccadilly Hotel	32.41	480	S	B
532136	Victoria-169-532136	1	169	Victoria Street	31.92							C	Golden Apple	30.12	150	S	B
532130	Victoria-165-167-532130	1	165-167	Victoria Street	31.69		5	N	L	S	B	C	Doughboy & Express Food Catering	29.13	340	S	B
532123	Victoria-163-532123	1	163	Victoria Street	31.63	32.39	3	Y	M	S	B						
532119	Victoria-161-532119	1	161	Victoria Street	31.59	29.86 (Approx	3	Y	M	S	B						
532114	Victoria-159-532114	1	159	Victoria Street	31.52	29.81	4	Y	L	S	B						
532111	Victoria-157-532111	1	157	Victoria Street	31.46	29.12 (Approx	4	Y	L	S	B						
532107	Victoria-155-532107	1	155	Victoria Street	31.38							C	Ms Gs Restaurant	31.41	120	S	B
532004	Victoria-123-125-532004	1	123-125	Victoria Street	30.21							C	Mezalona Ristorante Italiano	27.39	290	S	B
532000	Victoria-119-121-532000	1	119-121	Victoria Street	30.14	28.73	4	Y	L	S	B						
531998	Victoria-117-531998-Rear	1	117	Victoria Street	11.93	14.41	11	Y	L	S	B						
531981	Victoria-101-115-531981	Abt 8	101-115	Victoria Street	27.37	27.70	12	Y	L	S	B						
599219	William-077-083-599219	1	77-83	William Street	13.73		4	N	L	S	B	C	First Blood	14.09	300	S	B
599218	William-073-075-599218	1	73-75	William Street	13.27							C	Thrifty Car Rental	13.44	250	S	B
599231	William-061-071-599231	1	61-71	William Street	12.57							C	Hertz Car Rental, Food Store, Archi	(Basem	330	S	B
606332	William-060-070-606332	1	60-70	William Street	12.59		13	N	L	S	B	C	Paramount Apartments (Restaurant	12.63	850	S	B
599235	William-053-059-599235	1	53-59	William Street	12.68							C	Goldstein Catering Equipment	2 (Basem	450	S	B
600939	William-052-058-600939	1	52-58	William Street	12.80		7		L	S	B	C	"Peejays" Commercial Offices	12.83	820	S	B
599241	William-051-599241	1	51-51A	William Street	12.79							C	Currently vacant	12.93	80	S	B
599243	William-047-049-599243	1	47-49	William Street	12.94							C	Hotel William	13.00	270	S	B
533234	Yurong-058-533234	1	58	Yurong Street	19.19							C	Chiston-Browne-Crossley Solicitors	19.19	80	P	B
533232	Yurong-056-533232	1	56	Yurong Street	20.05							C	Prentice Jaruin Lawyers	20.44	80	P	B
533230	Yurong-054-533230	1	54	Yurong Street	19.72	20.19	D	Y	M	P	B						
533228	Yurong-052-533228	1	52	Yurong Street	19.29	17.66	3	Y	M	P	B						
533210	Yurong-004-016-533210	1	004-016	Yurong Street	12.89							C	Omnilab media	13.42	1300	S	B
533213	Yurong-022-533213	1	22	Yurong Street	13.60							C	Luce Plan Costanza	14.87	1260	S	B
533212	Yurong-020-533212	1	20	Yurong Street	12.66		4	Y	L	S	B	C	Museum Lodge	12.85	460	S	B

Floor Level Survey (undertaken in 2014 as part of Woolloomooloo Floodplain Risk Management Study)

Parcel Tags	Photo Name	Street Number	Street Name	Easting (m)	Northing (m)	RESIDENTIAL BUILDING		NON-RESIDENTIAL BUILDING	
						Indicative	Lowest Habitable	Type Commercial (C)	Additional Comments
532479	<a href="#">3 Waratah St.png</a>	3	Waratah Street	336101.0	6250427.0	4.86	5.44	Residential(R)	
530783		40A	Roslyn Gardens	336055.0	6250421.0	9.38	5.98	Residential	Ground Level Top of Driveway Roslyn Gardens
		40A	Roslyn Gardens	336096.0	6250408.0	3.00		Residential	Ground Level Rear Property -Parking Area
530765		20-22	Roslyn Gardens	336092.0	6250493.0	10.96	11.93	Residential	Entrance Foyer level(Lowest Habitable Level Inaccessible)
528013		1	Evans Road	336136.0	6250477.0	6.00	6.88	Residential	
532478		2	Waratah Street	336095.0	6250457.0	7.33	6.80	Residential	
532481		4	Waratah Street	336111.0	6250444.0	5.43	6.00	Residential	Entrance Foyer level
530856		46	Roslyn Gardens	336044.0	6250388.0	10.14	10.50	Residential	Entrance Foyer level
		46	Roslyn Gardens	336082.0	6250374.0	3.50		Residential	Level at Rear of Property
530857		50-58	Roslyn Gardens	336041.0	6250374.0	10.40		Residential(R)	Roslyn Gardens Street Level
		50-58	Roslyn Gardens	336062.0	6250353.0	3.70	3.70	Residential(R)	Floor level at Base of Building
530974		31	Roslyn Street	335864.0	6250366.0	33.46	33.49	R	
530905		60	Roslyn Gardens	336029.0	6250344.0	10.70	6.00	R	Lowest Floor Level Rear Building
530968		24-28	Roslyn Street	335936.0	6250219.0	24.29	25.50	Church	Floor Level Church First Floor
		24-28	Roslyn Street	335943.0	6250941.0	20.90	21.00	Church	Floor Level 2 Storey Building Rear Property
528730		4A	Ithaca Road	336155.0	6250708.0	8.00	9.20	R	Floor Level at Southern Side-RL 7.0 GND LVL at Rear
528732		6-8	Ithaca Road	336147.0	6250694.0	12.13	13.40	R	
		6-8	Ithaca Road	336168.0	6250699.0	7.00	7.50	R	Floor Level Bottom Unit AT Rear
528004		5-7	Esplanade	336201.0	6250775.0	2.45	3.90	R	
533153		7	Wylde Street	335790.0	6251230.0	20.20	18.27	R	
		7	Wylde Street			20.49		R	Entrance Foyer Level
531810		38	Victoria Street	335699.0	6251066.0	16.60	17.40	R	
524760	<a href="#">21C Billyard Ave.png</a>	21C	Billyard Avenue	335996.0	6250776.5	20.66	17.26	Residential(R)	Onslow Street Frontage
524760		21C	Billyard Avenue	336053.0	6250813.0	6.28	6.40	R	Billyard Avenue Frontage
524767		26	Billyard Avenue	336005.5	6250885.0	10.47	10.63	R	
524776		28	Billyard Avenue	336013.5	6250875.0	9.44	8.00	R	RL 8.00 Floor Level at Front Doorway
524787		42	Billyard Avenue	336107.5	6250786.5	5.27	4.30	R	RL 4.3 Floor level South Entrance to Main House
		42	Billyard Avenue	336138.5	6250771.5	4.68		R	Garage Entrance Near Intersection Ithaca
		42	Billyard Avenue	336090.5	6250795.0	5.60		R	Entrance Western End Billyard Ave Frontage
528727		2A	Ithaca Road	336155.0	6250750.0	4.44	5.50	R	
		2A	Ithaca Road	336180.0	6250756.0	3.00	3.00	R	Rear Levels At No.2A
532022		141	Victoria Street	335609.0	6250595.0	30.61	27.70	Commercial©	Basement Level of Terrace-RL31.20Ground Floor
532024		141A	Victoria Street	335609.0	6250594.0	30.70	27.70	C	Basement Level of Terrace-RL31.20Ground Floor
532030		145-153	Victoria Street	335604.0	6250558.0	31.30	31.29	C	
532157		178	Victoria Street	335613.0	6250485.0	32.53	32.85	C	
532159		180	Victoria Street	335613.0	6250479.0	32.76	34.30	C	
532150		175	Victoria Street	335590.0	6250472.0	32.60	32.76	C	
532156		177-179	Victoria Street	335589.0	6250465.0	32.70	32.82	C	
532161		181-183	Victoria Street	335588.0	6250457.0	33.01	33.33	C	
532173		187	Victoria Street	335586.5	6250449.5	33.25	34.04	C	
532175		189	Victoria Street	335585.5	6250442.0	33.50	34.05	C	
532180		191	Victoria Street	335585.0	6250440.0	33.60	34.00	C	
529624		124	McElhone Street	335507.5	6250581.5	8.90	9.20	Residential(R)	
		126	McElhone Street	335506.5	6250575.0	9.30	9.40	R	
		128	McElhone Street	335506.0	6250574.0	9.33	9.72	R	
		130	McElhone Street	335505.0	6250566.5	9.79	10.01	R	
532931		1	Windeyer Street	335526.0	6250563.0	10.86	10.71	R	
532932		2	Windeyer Street	335527.0	6250563.0	10.95	10.71	R	
525911		105	Cathedral Street	335043.0	6250554.5	4.63	4.77	C/R	
525912	<a href="#">107 Cathedral Street.png</a>	107	Cathedral Street	335042.0	6250554.5	4.61	4.94	C/R	
525915		109	Cathedral Street	335046.5	6250553.5	4.56	4.74	C/R	
525919		115	Cathedral Street	335083.0	6250548.0	4.69	5.04	Residential(R)	
525921		117	Cathedral Street	335089.0	6250547.0	4.71	5.05	R	
525922		117A	Cathedral Street	335094.0	6250546.0	4.77	5.09	R	
525925		119	Cathedral Street	335100.0	6250545.0	4.74	5.08	R	
627794		124	Cathedral Street	335120.0	6250562.0	4.41	4.67	R	
627795		126	Cathedral Street	335125.0	6250562.0	4.54	4.72	R	
525934		128	Cathedral Street	335138.0	6250560.0	4.47	4.65	R	
530389		53	Riley Street	334943.0	6250431.0	8.86	9.30	Commercial(C)	
530392		55-61	Riley Street	334940.0	6250415.0	9.39	9.63	C	
		55-61	Riley Street	334915.5	6250415.0		7.71	C	Doorway Busby Lane
526648		2	Crown Street	335097.0	6250702.5	4.33	4.43	Residential(R)	
526689		64-66	Crown Street	335074.0	6250549.0	4.71	5.02	Commercial(C)	East Sydney Hotel

Floor Level Survey (undertaken in 2014 as part of Woolloomooloo Floodplain Risk Management Study)

Parcel Tags	Photo Name	Street Number	Street Name	Easting (m)	Northing (m)	RESIDENTIAL BUILDING		NON-RESIDENTIAL BUILDING	
						Indicative	Lowest Habitable	Type Commercial (C)	Additional Comments
526715		89	Crown Street	335011.0	6250307.0	14.69	14.88	C	
526717	<a href="#">91 Crown Street.png</a>	91	Crown Street	335010.0	6250304.0	14.88	14.88	C	
526827		173	Crown Street	334967.0	6250053.0	21.40	21.54	Residential(R)	
527584		250A	Dowling Street	335451.0	6250318.0	27.75	27.86	Industrial	McElhone Street Frontage Electricity Substaion
		250A	Dowling Street	335448.0	6250319.0	23.70		Industrial	Brougham Lane Level
531393		3A-5	Stanley Lane	334894.0	6250226.0	13.77	13.84	Residential(R)	Apartment 4
		3A-5	Stanley Lane	334889.0	6250227.0	13.33	13.45	R	Apartment 3
		3A-5	Stanley Lane	334884.5	6250227.5	13.24	13.26	R	Apartment 2
		3A-5	Stanley Lane	334880.0	6250228.0	12.75	12.89	R	Apartment 1
531434		41-43	Stanley Street	334832.0	6250170.0	16.60	17.04	Commercial(C)	Levels at Rear of Properrty
615041		48-50	Stanley Street	334844.0	6250212.0	14.80	14.93	C	
627788	<a href="#">52-54 Stanley Street.png</a>	52-54	Stanley Street	334870.0	6250204.0	14.93	15.42	C	
531449		58A	Stanley Street	334889.0	6250200.0	15.16	15.42	C	
531451		60	Stanley Street	334891.0	6250200.5	15.20	15.43	C	
533226		40-50	Francis Street	334832.0	6250165.0	16.80	15.51	C	Floor Level at Rear of Building
528396		37-39	Francis Street	334828.0	6250134.5	17.90	19.90	Residential(R)	
529286		289	Liverpool Street	335082.0	6249977.0	29.16	29.42	R/C	
524844		1	Boomerang Place	334867.0	6250395.0	13.31	13.31	Residential(R)	William Street Entrance Foyer
		1	Boomerang Place	334912.0	6250465.0		6.21	Residential(R)	Rear Lane Garage Entrance
		1	Boomerang Place	334914.5	6250460.0		6.39	Residential(R)	Rear Lane Fire Door Entrance
		1	Boomerang Place	334916.0	6250453.0		6.81	Residential(R)	Rear Lane Fire Door Entrance
530381		23-31	Riley Street	334956.5	6250508.5	6.24	6.10	Commercial(C)	
528483		1	Grantham Street	335758.0	6251141.0	20.70	19.80	Residential(R)	Entrance Foyer Level
611874		13	Grantham Street	335763.0	6251166.0	21.83	21.02	Residential(R)	Entrance Foyer Level-No.5 Stanford Hall
598056	<a href="#">2 Bourke St.png</a>	2	Bourke Street	335302.0	6250931.0	2.04	2.23	Commercial(C)	Woolloomooloo Hotel
525095		43-45	Bourke Street	335266.0	6250834.0	2.02	2.02	Commercial(C)	Eastern Distributor Offices
525126		91-91A	Bourke Street	335239.0	6250681.0	2.00	2.22	C	
525289		224A	Bourke Street	335198.0	6250074.0				No Access
525358		281-283	Bourke Street	335120.0	6249955.0	33.85	29.30	Residential(R)	Courtyard at Rear
530496		134	Riley Street	334900.0	6250052.5	18.92	19.21	R	
530485		127	Riley Street	334892.0	6250122.0	17.33	17.65	Residential(R)	
530393		58	Riley Street	334942.0	6250309.0	12.16	12.46	Commercial(C)	
530394		60	Riley Street	334941.0	6250302.0	12.40	12.54	C	
530398		62-64	Riley Street	334939.0	6250292.0	12.52	12.69	C	
632547		66-68	Riley Street	334937.0	6250279.0	12.82	12.97	C	
530434		70-76	Riley Street	334933.0	6250253.0	14.16	14.21	C	
530448		98-106	Riley Street	334913.0	6250136.0	17.09	17.17	C	
530454		109	Riley Street	334910.0	6250229.0	14.37	13.80	Commercial(C)	Floor Level At Rear of Building(Watters Gallery)
530454		99-107	Riley Street	334912.0	6250246.0	13.85		C	Vacant Lot
530461		113	Riley Street	334907.0	6250212.0	14.96	15.16	Residential(R)	
528011		Roadway	Esplanade	336178.0	6250789.5	2.05		Road	Centre Roadway Eastern End
		Roadway	Esplanade	336229.0	6250770.0	2.85		Road	Centre Roadway Western End
531705		6	Thomson Street	335213.0	6250091.0	38.44	39.14	Residential(R)	
531718		30	Thomson Street	335204.0	6250036.0	39.12	39.72	Residential(R)	
528246		235	Forbes Street	335244.5	6250053.0	42.35	42.35	R	
528253		239	Forbes Street	335243.0	6250042.0	42.78	42.95	R	
599174	<a href="#">1 Crown Lane.png</a>	1	Crown Lane	334974.0	6250314.0	12.72	12.85	Commercial(C)	
532782		85-91	William Street	334991.0	6250337.0	14.07	14.51	Commercial(C)	
514454		6	Lincoln Crescent	335260.0	6251170.0	2.75	2.87	Industrial(I)	Ausgrid Electricity Substation No.1600
525358		2/303A	Liverpool Street	335123.0	6249970.0	32.70	33.12	Residential(R)	
525358		2/303B	Liverpool Street	335120.0	6249971.0	31.39	31.39	R/C	
529291		2-303	Liverpool Street	335112.0	6249972.0	30.91	31.34	R/C	
		2-301	Liverpool Street	335109.0	6249972.5	30.91	31.10	R/C	Rear Courtyard Area
		2-299	Liverpool Street	335105.0	6249973.0	30.23	30.75	R/C	
		2-297	Liverpool Street	335100.0	6249974.0	30.23	30.43	R/C	
		2-295	Liverpool Street	335096.0	6249975.0	29.95	30.10	R/C	
		2-293	Liverpool Street	335090.0	6249975.5	29.60	29.86	R/C	
		2-291	Liverpool Street	335086.5	6249976.0	29.37	29.63	R/C	
529286		2-289	Liverpool Street	335082.0	6249977.0	29.16	29.42	R/C	
		2-287	Liverpool Street	335078.0	6249977.0	28.93	29.11	R/C	
529186		12	Liverpool Lane	335036.0	6250036.0	24.40	24.50	Residential(R)	
523539		27-51	Palmer Street	335151.0	6250639.0	2.87	3.07	R	
523706		191-193	Palmer Street	335054.0	6250051.5	25.90	26.00	R	

Floor Level Survey (undertaken in 2014 as part of Woolloomooloo Floodplain Risk Management Study)

Parcel Tags	Photo Name	Street Number	Street Name	Easting (m)	Northing (m)	RESIDENTIAL BUILDING		NON-RESIDENTIAL BUILDING	
						Indicative	Lowest Habitable	Type Commercial (C)	Additional Comments
523755	<a href="#">219 Palmer Street.png</a>	219	Palmer Street	335009.0	6249955.0	24.85	24.85	Commercial(C)	Rear of Building Intersection Langley Street/Kings Lane
		219	Palmer Street	335036.0	6249949.5	29.64	29.96	C	Front Building Palmer Street
533141		24	Woods Lane	335024.0	6250055.0	23.27	23.62	Residential(R)	
527818		72	Elizabeth Bay Road	336135.7	6250626.0	20.85	20.90	R	
527819		74	Elizabeth Bay Road	336146.5	6250621.7	19.78		R	
531277		2-4	Sir John Young Cre	335175.0	6250780.0	3.84	4.20	R	
531279		6	Sir John Young Cre	335154.5	6250774.0	3.86	4.59	R	
531280		8	Sir John Young Cre	335152.0	6250771.5	3.85	4.47	R	
531281		10	Sir John Young Cre	335148.0	6250768.0	3.85	3.91	R	
531284		22-40	Sir John Young Cre	335111.0	6250730.0	4.40	4.40	R	
516978		60-72	Sir John Young Cre	335062.0	6250620.0	3.66	1.64	R	Lower Basement Floor Level Each Unit-RL4.57 Ground Floor Crown Street Frontage
523068		18	Onslow Avenue	335026.0	6250712.5	23.85	24.20	Residential(R)	Foyer Level Front Entrance
		18	Onslow Avenue	335026.0	6250712.5		18.10	R	Ground Level Side/Rear Building
523076	<a href="#">28 Onslow Avenue.png</a>	28	Onslow Avenue	336092.5	6250654.0	25.26	25.42	R	Entrance Door Level