



### **APPENDIX A: GLOSSARY**

### Taken from the Floodplain Development Manual (April 2005 edition)

#### acid sulfate soils

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.

### Annual Exceedance Probability (AEP)

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).

# Australian Height Datum (AHD)

A common national surface level datum approximately corresponding to mean sea level

# Average Annual Damage (AAD)

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.

### Average Recurrence Interval (ARI)

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.

# caravan and moveable home parks

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.

#### catchment

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.

### consent authority

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.

#### development

Is defined in Part 4 of the Environmental Planning and Assessment Act (EP&A Act).

**infill development:** 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.

**new development:** 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.

disaster plan (DISPLAN)

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.

discharge

The rate of flow of water measured in terms of volume per unit time, for example, cubic metres per second (m³/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).

ecologically sustainable development (ESD)

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.

effective warning time

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.

emergency management

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.

flash flooding

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.

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 tsunami.

flood awareness

Flood awareness is an appreciation of the likely effects of flooding and a knowledge of the relevant flood warning, response and evacuation procedures.

flood education

Flood education seeks to provide information to raise awareness of the flood problem so as to enable individuals to understand how to manage themselves an their property in response to flood warnings and in a flood event. It invokes a state of flood readiness.

flood fringe areas

The remaining area of flood prone land after floodway and flood storage areas have been defined.

flood liable land

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).

#### flood mitigation standard

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.

#### floodplain

Area of land which is subject to inundation by floods up to and including the probable maximum flood event, that is, flood prone land.

# floodplain risk management options

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.

### floodplain risk management plan

A management plan developed in accordance with the principles and guidelines in this manual. Usually includes both written and diagrammetic information describing how particular areas of flood prone land are to be used and managed to achieve defined objectives.

#### flood plan (local)

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.

#### flood planning area

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.

## Flood Planning Levels (FPLs)

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.

#### flood proofing

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.

#### flood prone land

Is land susceptible to flooding by the Probable Maximum Flood (PMF) event. Flood prone land is synonymous with flood liable land.

#### flood readiness

Flood readiness is an ability to react within the effective warning time.

#### flood risk

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.

**existing flood risk:** the risk a community is exposed to as a result of its location on the floodplain.

**future flood risk:** the risk a community may be exposed to as a result of new development on the floodplain.

**continuing flood risk:** 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.

#### flood storage areas

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.

#### floodway areas

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.

#### freeboard

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.

#### habitable room

in a residential situation: a living or working area, such as a lounge room, dining room, rumpus room, kitchen, bedroom or workroom.

in an industrial or commercial situation: an area used for offices or to store valuable possessions susceptible to flood damage in the event of a flood.

#### hazard

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.

#### hydraulics

Term given to the study of water flow in waterways; in particular, the evaluation of flow parameters such as water level and velocity.

#### hydrograph

A graph which shows how the discharge or stage/flood level at any particular location varies with time during a flood.

### hydrology

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.

### local overland flooding

Inundation by local runoff rather than overbank discharge from a stream, river, estuary, lake or dam.

#### local drainage

Are smaller scale problems in urban areas. They are outside the definition of major drainage in this glossary.

#### mainstream flooding

Inundation of normally dry land occurring when water overflows the natural or artificial banks of a stream, river, estuary, lake or dam.

#### major drainage

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:

\$ 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

- \$ 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 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.

Probable Maximum Precipitation (PMP) 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 the year, with no allowance made for long-term climatic trends (World Meteorological Organisation, 1986). It is the primary input to PMF estimation.

probability A statistical measure of the expected chance of flooding (see AEP).

risk 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.

runoff The amount of rainfall which actually ends up as streamflow, also known as

rainfall excess.

stage Equivalent to Awater level@. Both are measured with reference to a specified

datum.

stage hydrograph 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.

survey plan A plan prepared by a registered surveyor.

water surface profile A graph showing the flood stage at any given location along a watercourse at a

particular time.

wind fetch The horizontal distance in the direction of wind over which wind waves are

generated.







# Rushcutters Bay Catchment Floodplain Risk Management Study and Plan

(S)

June 2014

The City of Sydney is preparing a Floodplain Risk Management Study and Plan for the Rushcutters Bay 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.

# cityofsydney.nsw.gov.au/floodplain-management







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

The Rushcutters Bay 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 Rushcutters Bay 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

- 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 Rushcutters Bay study area includes parts of Rushcutters Bay, Elizabeth Bay, Darlinghurst and Paddington.

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:

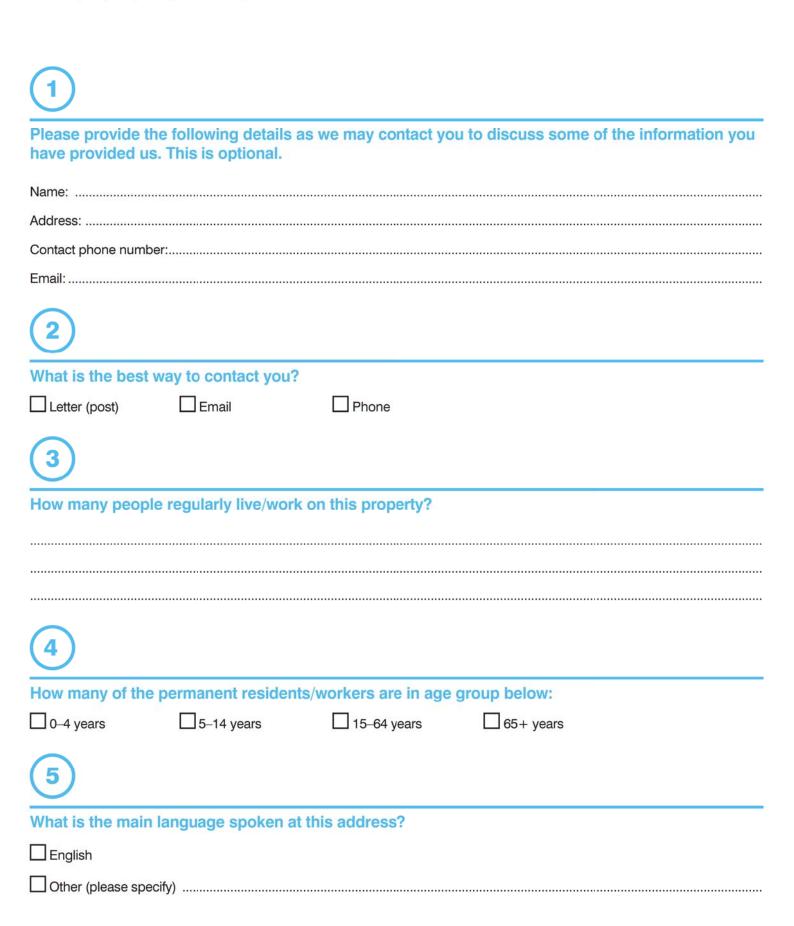
- Revision of the Local Disaster Plan;
- Public awareness and education locality-based flooding information for residents;
- Public awareness and education flooding information for schools;
- Flood depth markers at major (flood-affected) road crossings;
- Continuation of existing public awareness and 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 City of Sydney Shah Alam Phone: 02 9288 5925 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 Rushcutters Bay 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.



6
Is your property (please tick)
Owner occupied Occupied by a tenant Business
Other (please specify)
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 Rushcutters Bay 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	Pi	efe	rer	ice	
Retarding or detention basins (these temporarily hold water and reduce peak flood flows) —	1	2	3	4	5
Suggested location/other comments:					
Improved flood flow paths —	1	2	3	4	5
Suggested location/other comments:					
Culvert/bridge enlarging —	1	2	3	4	5
Suggested location/other comments:					
Pit and pipe upgrades —	1	2	3	4	5
Suggested location/other comments:					
Levee banks or flood walls —	1	2	3	4	5
Suggested location/other comments:					
Strategic planning and flood related development controls —	1	2	3	4	5
Suggested location/other comments:					
Education of the community, providing greater awareness of potential hazards —	1	2	3	4	5
Suggested location/other comments:					
Flood forecasting, flood warnings, evacuation planning and emergency response measures —	1	2	3	4	5
Suggested location/other comments:					
Other (please specify any options you think are suitable):					
please write them in the space below. Feel free to attach additional pages if necessary.					

### Glossary

**Culvert** – a piped drain or covered channel that passes under a road or railroad.

**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.

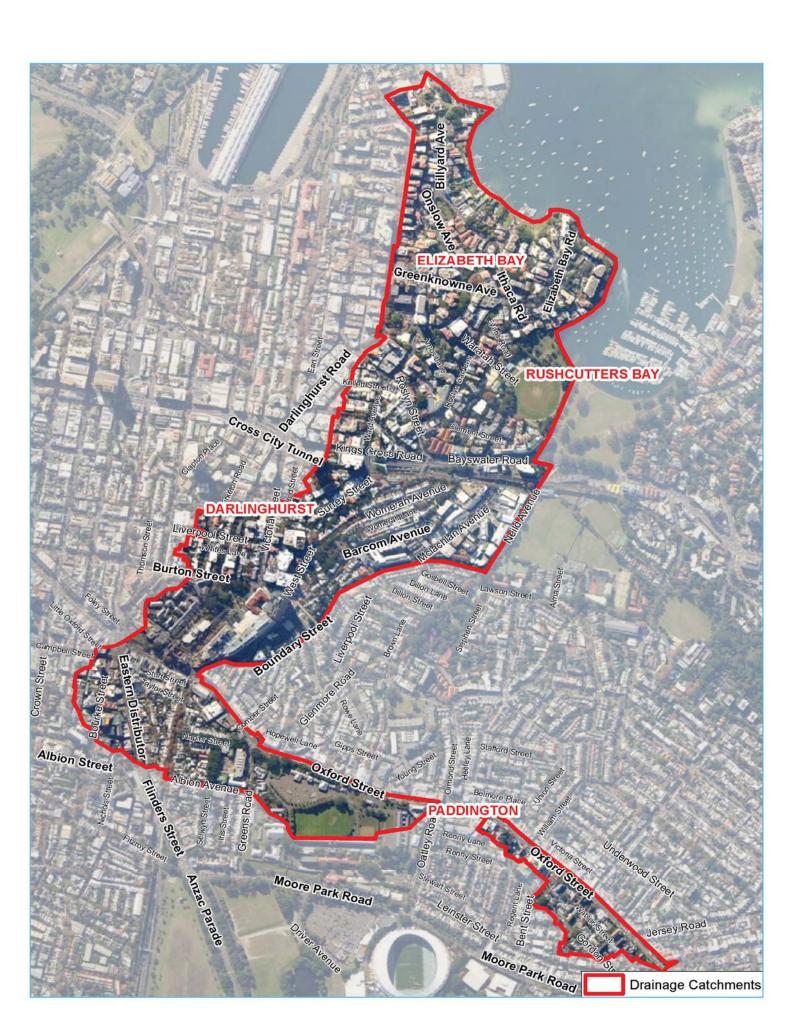




Table C1:	Cost Estimate - Option FM-RB01 - Boundary Street Pipe Upgr	ade				
	Description of Work	Quantity	Unit	Rate	RB0	1
1	General Construction Costs	,				
	Site establishment, security fencing, facilities and					
1.1	disestablishment	1	item	0		0
1.2	Provision of sediment and erosion control	1	item	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
	SUBTOTAL (Assumed as 15% of works cost)				\$	594,075
2	Demolition and Clearing				+	55 1,575
	Clearing and grubbing	0	sq. m	11		0
	Strip topsoil and stockpile for re-use (assuming 150mm	ı	04: 111	<del>                                     </del>		
93500 1040	depth)	l 0	cu. m	27		0
	Dispose of excess topsoil (nominal 10% allowance)		cu. m	65		0
	Pull up and dispose existing road surface		sq. m	38		56,867
	SUBTOTAL	1,00			\$	56,867
4	Installation of Drainage				Ť	
	Supply, excavate, bed, lay, joint, backfill and provide				$\vdash$	
	connections 0.45m dia. Pipe	17	lin. m	999		16,683
	Supply, excavate, bed, lay, joint, backfill and provide	.,				. 5,000
4.4	connections twin 0.9m dia. Pipe	37	lin. m	1,728		64,084
	Supply, excavate, bed, lay, joint, backfill and provide			,,		,
4.5	connections 1.2m dia. Pipe	176	lin. m	1,782		313,263
	Supply, excavate, bed, lay, joint, backfill and provide			,,,,,,		,
4.6	connections 1.5m dia. Pipe	40	lin. m	2,430		98,026
	Supply, excavate, bed, lay, joint, backfill and provide					,
4.8	connections 1.8m dia. Pipe	12	lin. m	3,564		43,753
	Supply, excavate, bed, lay, joint, backfill and provide					•
4.21	connections 1.5m x 0.6m culvert	423	lin. m	2,700		1,142,076
	Supply, excavate, bed, lay, joint, backfill and provide					
	connections 1.5m x 1.5m culvert	19	lin. m	3,024		58,088
	Supply, excavate, bed, lay, joint, backfill and provide					
4.24	connections 1.8m x 1.2m culvert	28	lin. m	3,456		96,138
	Install new drainage/junction pit (assumed 1 pit per 5m of					
4.49	pipe)	150	each	4,320		648,000
	Adjustment of existing services (nominal allowance)					
	(assumed 30% of drainage installation cost)					1,095,028
	SUBTOTAL				\$	3,302,464
	Footpath and Road Surfaces				φ.	3,302,404
	rootpatii aiiu noau sullaces				$\vdash$	
	Reinstate disturbed road pavement, including demolition					
71	and disposal of additional material to provide good jointing	1 504	sq. m	130		194,973
<del>  '.</del>	SUBTOTAL	1,504	oy. III	130	\$	194,973
	Traffic Management				Ψ	134,313
	Control of traffic during works (nominal allowance)				$\vdash$	
0.4	(assumed \$500 per lin.m)	750	lin. m	540		406,195
9.1	SUBTOTAL	152	001-111	340	\$	406,195
					Ψ	700,193
	CONSTRUCTION SUBTOTAL				\$	4,554,574
11	Contingencies				\$	7,004,074
	50% construction cost				\$	2,277,287
11.1	JO /O CONSTRUCTION COST				Ψ-	2,211,201
	CONSTRUCTION TOTAL ava GST				¢.	6 921 961
7	CONSTRUCTION TOTAL, exc. GST GST				\$	6,831,861
-	CONSTRUCTION TOTAL, inc. GST				\$	683,186 7,515,047
	CONSTRUCTION TOTAL, Inc. GST				\$	
	CONSTRUCTION TOTAL, Tourided	l			Ψ	7,515,000

11	MAINTENANCE		2'	
11.1	Maintenance of mitigation option	item		\$ 7,522

stimate - Option FM-RB02 - Boundary Street to Weigal ption of Work		Unit	Rate	RB0	2
	Quantity	Unit	нате	RBU	2
al Construction Costs			1		
stablishment, security fencing, facilities and		:4			
ablishment		item	0		
ion of sediment and erosion control		item	0	_	
ruction setout and survey		item	0	_	
as executed survey and documentation		item	0	-	
chnical supervision, testing and certification	1	item	0		
OTAL (Assumed as 15% of works cost)				\$	440,95
ition and Clearing					
ng and grubbing	0	sq. m	11		
opsoil and stockpile for re-use (assuming 150mm					
	0	cu. m	27		
se of excess topsoil (nominal 10% allowance)		cu. m	65		
and dispose existing road surface		sq. m	38		40,3
OTAL	1,00		-	\$	40,34
ation of Drainage			1	+	,.
y, excavate, bed, lay, joint, backfill and provide			1		
ctions 0.45m dia. Pipe	17	lin. m	999		16,6
y, excavate, bed, lay, joint, backfill and provide	17	1111. 111	333	<del>                                     </del>	10,0
ctions twin 0.9m dia. Pipe	12	lin. m	1,728		21,7
y, excavate, bed, lay, joint, backfill and provide	13	1111. 111	1,720	-	21,7
ctions 1.2m dia. Pipe	176	lin. m	1 700		212.0
y, excavate, bed, lay, joint, backfill and provide	176	IIII. III	1,782	$\vdash$	313,2
	40	lin m	0.400		00.0
ctions 1.5m dia. Pipe	40	lin. m	2,430	_	98,0
y, excavate, bed, lay, joint, backfill and provide			0.504		40.7
ctions 1.8m dia. Pipe	12	lin. m	3,564		43,7
y, excavate, bed, lay, joint, backfill and provide					
ctions 1.5m x 0.6m culvert	59	lin. m	2,700		158,1
y, excavate, bed, lay, joint, backfill and provide			200000		2000
ctions 1.5m x 1.5m culvert	19	lin. m	3,024	Ь_	58,0
y, excavate, bed, lay, joint, backfill and provide					2022/2012/1902
ctions 1.8m x 1.2m culvert	198	lin. m	3,456		685,0
new drainage/junction pit (assumed 1 pit per 5m of					
	107	each	4,320		462,2
ment of existing services (nominal allowance)					
ned 30% of drainage installation cost)					819,9
OTAL				\$	2,472,82
ath and Road Surfaces					
ate disturbed road pavement, including demolition					
sposal of additional material to provide good jointing	1,067	sq. m	130		138,3
OTAL	11			\$	138,34
Management					
ol of traffic during works (nominal allowance)				$\vdash$	
ned \$500 per lin.m)	534	lin. m	540		288,2
OTAL				\$	288,20
20.100 W. 10	<del>                                     </del>			Ť	
TRUCTION SUBTOTAL	<del> </del>			\$	3,380,67
ngencies	<del>                                     </del>			\$	-
onstruction cost	<del> </del>			\$	1,690,33
Unati dell'Uni eual	-			Ψ.	1,090,33
TRUCTION TOTAL eve CCT	-			•	E 074 04
TRUCTION TOTAL, exc. GST					5,071,01
TRUCTION TOTAL Sec. COT					507,10
TRUCTION TOTAL, inc. GST					5,578,11 5,578,10
TRUCTION		N TOTAL, inc. GST	N TOTAL, inc. GST	TOTAL, inc. GST	N TOTAL, inc. GST

11	MAINTENANCE			
11.1	Maintenance of mitigation option	item		\$ 5,337
	32.		ii i	

	Cost Estimate - Option FM-RB03 - Taylor, Sims and Sturt Stre	et Pipe Upg	grade			
	Description of Work		Unit	Rate	RB	03
1/	General Construction Costs	-				
	Site establishment, security fencing, facilities and					
	disestablishment	1	item	l 0		(
	Provision of sediment and erosion control		item	0		
	Construction setout and survey		item	0	$\vdash$	
	Work as executed survey and documentation		item	0	$\vdash$	
	Geotechnical supervision, testing and certification		item	0	$\vdash$	
1.5	SUBTOTAL (Assumed as 15% of works cost)	1	item	, ·	\$	451,525
	pagada kumang pagabang mas sa pagada pagada pagada pagada pagada pagada pagada pagada pagada sa pagada sa sa p				Ψ	431,323
	Demolition and Clearing			44	<u> </u>	
	Clearing and grubbing	0	sq. m	11	_	
	Strip topsoil and stockpile for re-use (assuming 150mm					
	depth)		cu. m	27	_	(
	Dispose of excess topsoil (nominal 10% allowance)		cu. m	65		
	Pull up and dispose existing road surface	1,435	sq. m	38		54,243
	SUBTOTAL				\$	54,243
	Installation of Drainage					
!	Supply, excavate, bed, lay, joint, backfill and provide			7		
	connections 0.45m dia. Pipe	17	lin. m	999		17,425
	Supply, excavate, bed, lay, joint, backfill and provide					0000 F 000
	connections 0.6m dia. Pipe	172	lin. m	1,053		180,606
	Supply, excavate, bed, lay, joint, backfill and provide	.,,_		1,000		100,000
	connections twin 0.9m dia. Pipe	257	lin. m	1,728		443,649
	Supply, excavate, bed, lay, joint, backfill and provide	201	1111. 111	1,720	$\vdash$	440,040
Accord 1	connections 1.2m dia. Pipe	164	lin m	1 700		202 222
	Supply, excavate, bed, lay, joint, backfill and provide	104	lin. m	1,782	$\vdash$	292,233
			l!	0.700		05.700
	connections 1.5m x 0.6m culvert	10	lin. m	2,700	<u> </u>	25,790
	Supply, excavate, bed, lay, joint, backfill and provide					
	connections 1.8m x 1.2m culvert	98	lin. m	3,456		339,585
	Install new drainage/junction pit (assumed 1 pit per 5m of				l	
4.49	pipe)	144	each	4,320		622,080
	Adjustment of existing services (nominal allowance)					
4.51	(assumed 20% of drainage installation cost)					571,799
	SUBTOTAL				\$	2,382,497
7	Footpath and Road Surfaces					
l,	Reinstate disturbed road pavement, including demolition					
	and disposal of additional material to provide good jointing	1 435	sq. m	130		185,977
	SUBTOTAL	1,100	04	100	\$	185,977
	Traffic Management		<del>                                     </del>		+	.00,011
	Control of traffic during works (nominal allowance)				$\vdash$	
9.90 50 8	(assumed \$500 per lin.m)	710	lin	540		207 454
	(assumed \$500 per iin.m) SUBTOTAL	/18	lin. m	540		387,451
;	JUDITOTAL				\$	387,451
	CONSTRUCTION SUBTOTAL				\$	3,461,693
	Contingencies				\$	
11.1	50% construction cost				\$	1,730,847
10	CONSTRUCTION TOTAL, exc. GST				\$	5,192,540
	GST				\$	519,254
	CONSTRUCTION TOTAL, inc. GST				\$	5,711,794
					2	5.711 800
	CONSTRUCTION TOTAL, rounded				\$	5,711,800
(	CONSTRUCTION TOTAL, rounded				\$	5,711,800
11			item		\$	7,175

	ble C4: Cost Estimate - Option FM-RB04 - Taylor to Boundary Street Pipe Upgrade								
	Description of Work	Quantity	Unit	Rate	RB04				
1	General Construction Costs				8				
	Site establishment, security fencing, facilities								
	and disestablishment	1	item	0		(			
	Provision of sediment and erosion control	1	item	0		(			
The state of the s	Construction setout and survey	1	item	0		(			
	Work as executed survey and documentation	1	item	0		(			
1.5	certification	1	item	0	_	(			
	SUBTOTAL (Assumed as 15% of works cost)				\$	1,263,868			
10	Demolition and Clearing								
2.1	Clearing and grubbing	0	sq. m	11		(			
2.2	Strip topsoil and stockpile for re-use (assuming 150mm depth)	0	cu. m	27		(			
	Dispose of excess topsoil (nominal 10%								
2.3	allowance)	۰ ا	cu. m	65		(			
	Pull up and dispose existing road surface	4870	sq. m	38		129,035			
	SUBTOTAL	,			\$	129,035			
1	Installation of Drainage		_		Ψ	129,000			
			_						
4.1	Supply, excavate, bed, lay, joint, backfill and provide connections 0.45m dia. Pipe	34	lin. m	999		34,128			
4.2	Supply, excavate, bed, lay, joint, backfill and provide connections 0.6m dia. Pipe	187	lin. m	1,053		196,776			
4.4	Supply, excavate, bed, lay, joint, backfill and provide connections twin 0.9m dia. Pipe	343	lin. m	1,728		592,554			
4.5	Supply, excavate, bed, lay, joint, backfill and provide connections 1.2m dia. Pipe	284	lin. m	1,782		505,261			
4.6	Supply, excavate, bed, lay, joint, backfill and provide connections 1.5m dia. Pipe	426	lin. m	2,430		1,034,158			
4.8	Supply, excavate, bed, lay, joint, backfill and provide connections 1.8m dia. Pipe	50	lin. m	3,564		177,931			
4.21	Supply, excavate, bed, lay, joint, backfill and provide connections 1.5m x 0.6m culvert	166	lin. m	2,700		449,244			
4.23	Supply, excavate, bed, lay, joint, backfill and provide connections 1.5m x 1.5m culvert	19	lin. m	3,024		58,088			
4.24	Supply, excavate, bed, lay, joint, backfill and provide connections 1.8m x 1.2m culvert	198	lin. m	3,456		685,086			
4.49	Install new drainage/junction pit (assumed 1 pit per 5m of pipe)	341	each	4,320		1,473,120			
4.51	Adjustment of existing services (nominal allowance) (assumed 30% of drainage installation cost)					2,298,725			
	SUBTOTAL				\$	6,932,663			
7	Footpath and Road Surfaces								
7.1	Reinstate disturbed road pavement, including demolition and disposal of additional material to provide good jointing	3,414	sq. m	130		442,406			
	SUBTOTAL	2,	1	.50	\$	442,406			
	Traffic Management				Ψ	772,400			

9.1	allowance) (assumed \$500 per lin.m)	1,707	lin. m	540	921,680
	SUBTOTAL				\$ 921,680
	CONSTRUCTION SUBTOTAL				\$ 9,689,652
11	Contingencies			7.0	\$
11.1	50% construction cost				\$ 4,844,826
	CONSTRUCTION TOTAL, exc. GST				\$ 14,534,478
	GST				\$ 1,453,448
	CONSTRUCTION TOTAL, inc. GST				\$ 15,987,926
	CONSTRUCTION TOTAL, rounded				\$ 15,987,900
11	MAINTENANCE				
11.1	Maintenance of mitigation option		item		\$ 17,068

Table C5:	Cost Estimate - Option FM-RB05 - Victoria Street Pipe	Upgrade				
tem No.	Description of Work	Quantity	Unit	Rate	RB	05
1	General Construction Costs					
	Site establishment, security fencing, facilities and					
1.1	disestablishment	1	item	) о		0
1.2	Provision of sediment and erosion control	1	item	0		0
	Construction setout and survey	1	item	0		0
	Work as executed survey and documentation	1	item	0		0
1.5	Geotechnical supervision, testing and certification	1	item	0		0
	SUBTOTAL (Assumed as 15% of works cost)				\$	93,139
2	Demolition and Clearing					
2.1	Clearing and grubbing	0	sq. m	11		0
	Strip topsoil and stockpile for re-use (assuming					
2.2	150mm depth)	0	cu. m	27		C
0460110		Vice		2500.0		22.0
	Dispose of excess topsoil (nominal 10% allowance)		cu. m	65		0
2.4	Pull up and dispose existing road surface	342	sq. m	38		12,928
	SUBTOTAL				\$	12,928
4	Installation of Drainage					
	Supply, excavate, bed, lay, joint, backfill and provide					
4.6	connections 1.5m dia. Pipe	171	lin. m	2,430		415,530
	Install new drainage/junction pit (assumed 1 pit per					
4.49	50m of pipe)	3	each	4,320		12,960
	Adjustment of existing services (nominal allowance)					
4.51	(assumed 10% of drainage installation cost)					47,134
	SUBTOTAL				\$	471,339
7	Footpath and Road Surfaces					
	Reinstate disturbed road pavement, including					
	demolition and disposal of additional material to					
7.1	provide good jointing	342	sq. m	130	_	44,323
	SUBTOTAL				\$	44,323
9	Traffic Management					
	Control of traffic during works (nominal allowance)					
9.1	(assumed \$500 per lin.m)	171	lin. m	540	_	92,340
	SUBTOTAL				\$	92,340
	CONCERNATION CURTOTAL				_	
44	CONSTRUCTION SUBTOTAL				\$	714,069
	Contingencies 50% construction cost				\$	9E7 005
11.1	50 /o Construction Cost				\$	357,035
	CONSTRUCTION TOTAL, exc. GST	-			\$	1,071,104
	GST	-			\$	107,110
	CONSTRUCTION TOTAL, inc. GST	<del>                                     </del>				1,178,214
	CONSTRUCTION TOTAL, rounded				\$	1,178,200
	7				Ť	.,,
11	MAINTENANCE					
7.17	Maintenance of mitigation option		item		\$	11,710
					Ė	



Table D1: Residential Tangible Damages - Option FM - RB01

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Total Damages for Event		Ave. Damage Per Flood Affected Property
PMF	138	87	\$	4,751,800	\$ 34,400
1%	100	24	\$	1,418,900	\$ 14,200
2%	92	23	\$	1,344,300	\$ 14,600
5%	90	20	\$	1,165,700	\$ 13,000
10%	81	10	\$	784,400	\$ 9,700
20%	79	5	\$	565,900	\$ 7,200
50%	65	3	\$	342,500	\$ 5,300
	Average Ann	nual Damages (AAD)	\$	420,500	\$ 3,000

Table D2: Commercial Tangible Damages - Option FM - RB01

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	tal Damages for Event	Ave. Damage Per Flood Affected Property
PMF	61	42	\$	6,941,900	\$ 113,800
1%	42	21	\$	3,374,100	\$ 80,300
2%	39	20	\$ 3,088,700		\$ 79,200
5%	36	17	\$	2,636,000	\$ 73,200
10%	26	10	\$	1,538,600	\$ 59,200
20%	22	5	\$	844,600	\$ 38,400
50%	17	3	\$ 538,600		\$ 31,700
	Average Ani	nual Damages (AAD)	\$ 735,400		\$ 12,100

Table D3: Combined Tangible Damages - Option FM - RB01

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Committee of the Commit		STATE OF THE PARTY OF	Damage Per Flood ected Property
PMF	199	129	\$	11,693,700	\$	58,800
1%	142	45	\$	4,793,000	\$	33,800
2%	131	43	\$	4,433,100	\$	33,800
5%	126	37	\$	3,801,700	\$	30,200
10%	107	20	\$	2,323,000	\$	21,700
20%	101	10	\$	1,410,600	\$	14,000
50%	82	6	\$	881,100	\$	10,700
	Average Ani	nual Damages (AAD)	\$	1,155,800	\$	5,800

Table D1: Residential Tangible Damages - Option FM -RB02

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	al Damages for Event	amage Per Flood ected Property
PMF	138	87	\$	4,802,100	\$ 34,800
1%	99	25	\$	1,474,000	\$ 14,900
2%	94	23	\$	1,347,100	\$ 14,300
5%	89	18	\$	1,167,200	\$ 13,100
10%	82	10	\$	786,500	\$ 9,600
20%	80	5	\$	565,800	\$ 7,100
50%	65	3	\$	335,100	\$ 5,200
	Average Ann	nual Damages (AAD)	\$	418,500	\$ 3,000

Table D2: Commercial Tangible Damages - Option FM -RB02

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	To	tal Damages for Event	Ave. Damage Per Flood Affected Property		
PMF	61	42	\$	6,950,300	\$ 113,900		
1%	41	21	\$	3,381,400	\$ 82,500		
2%	39	20	\$	3,110,500	\$ 79,800		
5%	36	17	\$	2,638,600	\$ 73,300		
10%	27	9	\$	1,425,000	\$ 52,800		
20%	23	6	\$	976,100	\$ 42,400		
50%	16	3	\$	520,700	\$ 32,500		
	Average Ani	nual Damages (AAD)	\$	746,700	\$ 12,200		

Table D3: Combined Tangible Damages - Option FM -RB02

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	tal Damages for Event	ACT OF THE PARTY.	Damage Per Flood ected Property
PMF	199	129	\$	11,752,400	\$	59,100
1%	140	46	\$	4,855,400	\$	34,700
2%	133	43	\$	4,457,600	\$	33,500
5%	125	35	\$	3,805,800	\$	30,400
10%	109	19	\$	2,211,400	\$	20,300
20%	103	11	\$	1,541,900	\$	15,000
50%	81	6	\$	855,800	\$	10,600
	Average Ann	nual Damages (AAD)	\$	1,165,200	\$	5,900

Table D1: Residential Tangible Damages - Option FM - RB03

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	al Damages for Event	Ave. Damage Per Flood Affected Property
PMF	130	76	\$	4,287,700	\$ 33,000
1%	72	12	\$	778,000	\$ 10,800
2%	69	9	\$	632,800	\$ 9,200
5%	65	9	\$	612,300	\$ 9,400
10%	62	7	\$	495,900	\$ 8,000
20%	58	5	\$	362,700	\$ 6,300
50%	54	5	\$	319,300	\$ 5,900
	Average Ann	nual Damages (AAD)	\$	303,800	\$ 2,300

Table D2: Commercial Tangible Damages - Option FM - RB03

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	tal Damages for Event	Ave. Damage Per Flood Affected Property
PMF	62	39	\$	6,598,400	\$ 106,400
1%	37	23	\$	3,672,300	\$ 99,300
2%	34	20	\$	3,213,700	\$ 94,500
5%	33	17	\$	2,774,800	\$ 84,100
10%	28	13	\$	2,181,700	\$ 77,900
20%	27	12	\$	1,954,300	\$ 72,400
50%	23	11	\$	1,739,700	\$ 75,600
	Average Ani	nual Damages (AAD)	\$	1,495,300	\$ 24,100

Table D3: Combined Tangible Damages - Option FM - RB03

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Total Damages for Event		of the same of the	amage Per Flood cted Property
PMF	192	115	\$	10,886,100	\$	56,700
1%	109	35	\$	4,450,200	\$	40,800
2%	103	29	\$	3,846,500	\$	37,300
5%	98	26	\$	3,387,100	\$	34,600
10%	90	20	\$	2,677,600	\$	29,800
20%	85	17	\$	2,317,000	\$	27,300
50%	77	16	\$	2,059,000	\$	26,700
	Average Ani	nual Damages (AAD)	\$	1,799,100	\$	9,400

Table D1: Residential Tangible Damages - Option FM - RB04

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	al Damages for Event	amage Per Flood ected Property
PMF	128	75	\$	4,210,900	\$ 32,900
1%	71	10	\$	657,200	\$ 9,300
2%	67	10	\$	636,500	\$ 9,500
5%	65	5	\$	491,100	\$ 7,600
10%	60	3	\$	372,000	\$ 6,200
20%	57	2	\$	284,100	\$ 5,000
50%	50	2	\$	229,400	\$ 4,600
	Average Ani	nual Damages (AAD)	\$	236,500	\$ 1,800

Table D2: Commercial Tangible Damages - Option FM - RB04

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	To	tal Damages for Event	Ave. Damage Per Flood Affected Property
PMF	61	39	\$	6,504,600	\$ 106,600
1%	32	19	\$	3,011,200	\$ 94,100
2%	31	18	\$	2,774,200	\$ 89,500
5%	28	15	\$	2,313,200	\$ 82,600
10%	22	9	\$	1,409,500	\$ 64,100
20%	22	6	\$	973,300	\$ 44,200
50%	16	4	\$	655,100	\$ 40,900
	Average Ani	nual Damages (AAD)	\$	773,000	\$ 12,700

Table D3: Combined Tangible Damages - Option FM - RB04

Event	No. Properties Affected (Flooded below floor)	No. Properties Flooded Above Floor Level	Tot	tal Damages for Event	Control of the last of the last	mage Per Flood ted Property
PMF	189	114	\$	10,715,500	\$	56,700
1%	103	29	\$	3,668,300	\$	35,600
2%	98	28	\$	3,410,600	\$	34,800
5%	93	20	\$	2,804,300	\$	30,200
10%	82	12	\$	1,781,600	\$	21,700
20%	79	8	\$	1,257,400	\$	15,900
50%	66	6	\$	884,500	\$	13,400
· ·	Average Ann	nual Damages (AAD)	\$	1,009,500	\$	5,300





nuper 16-32 McLachlan Avenue, Darlinghurst - C.jpg 16-32 McLachlan Avenue, Darlinghurst - D.jpg 19A-19B Boundary Street, Darlinghurst - B.jpg 84-90 McLachlan Avenue, Darlinghurst - B.jpg 80-82 McLachlan Avenue, Darlinghurst - A.jpg 80-82 McLachlan Avenue, Darlinghurst - B.jpg 56-72 McLachlan Avenue, Darlinghurst - B.ipg 16-32 McLachlan Avenue, Darlinghurst - A.jpg 19A-19B Boundary Street, Darlinghurst - A.jp 55A & 67-69 McLachlan Avenue, Darlinghurs 16-32 McLachlan Avenue, Darlinghurst - B.jpg 84-90 McLachlan Avenue, Darlinghurst - A.jp 56-72 McLachlan Avenue, Darlinghurst - A.jp 15-19 Boundary Street, Darlinghurst - A.jpg 15-19 Boundary Street, Darlinghurst - B.jpg 74-76 McLachlan Avenue, Darlinghurst.jpg 87-97 McLachlan Avenue, Darlinghurst.jpg 83-85 McLachlan Avenue, Darlinghurst.jpg 61-63 McLachlan Avenue, Darlinghurst.jpg 49-59 McLachlan Avenue, Darlinghurst.jpg 5-11 Boundary Street, Darlinghurst - A.jpg 77-79 McLachlan Avenue, Darlinghurst.jpg 73-75 McLachlan Avenue, Darlinghurst.jpg 5-11 Boundary Street, Darlinghurst - B.jpg 5-11 Boundary Street, Darlinghurst - C.jpg 65A & 67-69 McLachlan Avenue, Darlingh 62 McLachlan Avenue, Darlinghurst.jpg 50 McLachlan Avenue, Darlinghurst.jpg 30-62 Barcom Avenue, Darlinghurst.jpg 170 Barcom Avenue, Darlinghurst.jpg 168 Barcom Avenue, Darlinghurst.jpg 166 Barcom Avenue, Darlinghurst.jpg 164 Barcom Avenue, Darlinghurst.jpg 162 Barcom Avenue, Darlinghurst.jpg Boundary Street, Darlinghurst.jpg 65 Craigend Street, Darlinghurst.jpg 1 Kellett Place, Rushcutters Bay.jpg 20 Neild Avenue, Darlinghurst.jpg 10 Neild Avenue, Darlinghurst.jpg 12 Neild Avenue, Darlinghurst.jpg 16 Neild Avenue, Darlinghurst.jpg 6 Neild Avenue, Darlinghurst.jpg ssauisne Prestige Paint & Panel - Smash repairs Name not known - Household furnishir Prestige Paint & Panel - Smash repairs ame & Nature of Sydney City Lexus - Car dealership BMW Sydney - Car dealership Arthouse Gallery - Art gallery Nupos - Software developers Handler - Wholesale butcher Sandersons - Car dealership sandersons - Car dealership Sandersons - Car workshop Sandersons - Car dealership Grafton Galleries Antiques Neild Avenue - Restaurant N V Motors - Car repairs Rushcutters Self Storage Carlitos Expresso - Café The Textile Company Advanx · Sales suite Analu Fine Carpets Probuild - Builders /erve - Art gallery Zepel Fabrics Vacant /acant /acant /acant /acant Vacant N/A N/A N/A owest Floor Level) 20.26 where different to EULY Level from Street N/A N/A N/N N/A A/N N/N N/A 20 ourtyard Level (Front) 20.3 20.1 N/A N/A N/A N/A N/A N/A 10.2 N/A N/A 7.84 N/A ۷ N N/A 33 N/A 20.1 14 N/A N/A N/A N/A N/A 8.9 N/A 8.3 N/A N/A N/A 8.2 N/A N/A N/A N/A 6.3 N/A N/N N/A N/A Veir Level N/A 7.14 N/A 13 5.8 N/A N/A N/A N/A ٧ ٧ N/A 11.14 9.82 (Front) 6.38 13.44 8.89 8.74 5.84 8.45 21.94 8.12 5.77 5.02 21.62 9.53 9.94 9.02 5.27 7.86 12.9 5.74 21.79 21.79 21.62 12.67 7.93 9.42 7.04 5.46 5.81 13.11 N/A A/A K/N N/A 20.46 19.96 20.26 20.13 20.13 12.18 12.15 12.09 35.25 13.63 9.65 9.65 19.56 7.14 14.04 9.12 8.88 5.97 6.32 11.6 5.82 10.8 10.35 8.86 8.78 5.76 5.92 5.07 7.91 5.91 10.1 5.91 Habitable/Office Floor asement Parking Level 7.86 8.12 32.3 12.3 9.84 4.3 N/A N/A N/A N/A 6249942 N/A 6249948 6250334 guidho 6249824 6249837 6249854 6249849 6249925 6250034 6250036 6249829 6249830 6249835 6249854 6249873 6249859 6249879 6249906 6249877 6249908 6249936 6249915 624997.7 6249948 6249962 6250058 6250045 6250055 6249880 6249858 6249907 6249895 6249929 6249967 6249897 6249945 6249981 6250031 6250021 6249880 6249869 335813 335716 335718 336000 336014 335853 335706 335711 335712 335832 336012 336060 335955 335848 335935 335952 336044 335981 335997 336159 336131 336045 336142 336136 336128 336210 336095 Bunsea 336093 335989 336051 336028 335964 336040 336067 336177 336001 335997 336150 336059 335990 335896 (E=boo N/A (E=bood , S=9V) ondition: (Poor=1, (S) belo ibro (3), W'board (4), 1) Brick Veneer (2), RICK' 21006' KENDELED (S) or Pier (2) Refer to 67-69 McLachlan Avenue loor Construction: Slat round floor: (Y/N) 9 9 9 8 9 4 9 9 9 4 4 2 Storeys (J,M,2) ssi2 essimen Σ Σ Σ ΣΣ\_ Σ ΣΣ Σ Σ Σ Σ Σ ΣΣ Σ Σ Σ Σ Vacant (V) ndust (I), Public (P), sesid (R), School (S), (C) mmoJ:esU pue Shop 8 Not Knd nit Number 18 N/A N/A N/A N/A N/A N/A RUSHCUTTERS BAY NSW 2011 N/A N/A N/A npnup 2010 DARLINGHURST NSW 2010 NSW DARLINGHURST Street Name McLachlan Avenue undary Street undary Street ndary Street **Boundary Street** undary Street undary Street undary Street com Avenue arcom Avenue Sarcom Avenue arcom Avenue Barcom Avenue Craigend Street arcom Avenue Neild Avenue Neild Avenue Kellett Place Street Number 15-19 83-85 62-64 18-28 19A-19B 19A-19B 84-90 84-90 15-19 80-82 80-82 74-76 87-97 66-72 66-72 61-11 73-75 69-29 61-63 49-59 30-62 16-32 16-32 16-32 16-32 5-11 5-11 5-11 65A 170 168 166 164 162 7.1 20 20 20 20 9 43 ø ID PROPER 26440 26441 26439 26438 26437 30901 30177 30177 30666 30666 30666 30175 30664 30667 31562 4404 31557 43278 30175 3180 4580 31562 31562 31562 4174 4117 31557 31557 31557 4688 2904 4636 4340 4795 4795 4688 1051 4456 4524 3808 3141 1051

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

TOGULD !!	_						
Photo Reference Number							
	.jpg	.jpg	.jpg	.jpg	Bd	Bd	ba
	y-A	y - B	y-A	y - B.	Bay.j	Bay.j	Sav.
	rs Ba	rs Ba	rs Ba	rs Ba	ters	ters	Pre
	35 Roslyn Street, Rushcutters Bay - A.jpg	35 Roslyn Street, Rushcutters Bay - B.jpg	33 Roslyn Street, Rushcutters Bay - A.jpg	33 Roslyn Street, Rushcutters Bay - B.jpg	44 Roslyn Gardens, Rushcutters Bay.jpg	42 Roslyn Gardens, Rushcutters Bay.jpg	40 Roslyn Gardens Bushcutters Bay ing
	nshci	ushci	nshci	ushcı	Rus	Rus	Disc
	et, Ri	et, Ri	et, Ri	et, R	lens,	lens,	lone
	Stree	Stre	Stre	Stre	Gard	Gard	Gara
	slyn	slyn	slyn	slyn	slyn	slyn	chun
	5 Ro	5 Ro	3 Ro	3 Ro	4 Ro	2 Ro	000
ssaujsng	33	35	33	33	4	4	7
Name & Nature of							
					ery		
					Gall		
					- An		
					Michael Reid - Art Gallery		
		523	157	<u></u>	hael	-	
	N/A	N/A	N/A	N/A	Mic	N/A	A/M C Z
Lowest Floor Level)					7.2	7.2	7.3
Entry Level from Street (where different to	K	Ä	Ā	Ø			
	N/A	N/A	N/A	N/A	7	2	0
Courtyard Level (Front)	N/A	N/A N/A	N/A N/A	N/A N/A		6.95	0 9
Weir Level	N/A	N/A	N/A	N/A	10	6.6	0
(Front)	30.83		32.42		9.94	69.6	000
Natural Surface Level	30	N/A	32.	N/A	9.	9	0
Level	31.45	31.45	32.69	32.69	3.53	3.53	2 52
Lowest Habitable/Office Floor	3.	3,	3,	3	S. 1846.	317	
Basement Parking Level	_	_	_		_	_	
2 22	6250342 N/A	6250334 N/A	6250353 N/A	6250338 N/A	6250403 N/A	6250408 N/A	NA
BaidhoM	3342	3334	353	3338	3403	3408	6250A15 N/A
	6250	6250	6250	6250	6250	6250	6250
W							L
anitse3	335873	335862	335868	335859	336067	336069	225071
	33	33	33		33	5300	22
(E=booð	1	1	2	2	2	2	,
Ave=2, Good=3) Garden: (Poor=1, Ave=2,	2	2	2	2	2	ж	0
Condition: (Poor=1,							
(S) belO	1	1	1	1	1	1	,
(1) Brick Veneer (2), Fibro (3), W'board (4),							
Brick, Stone, Rendered							
Wall Construction:							L
(1) or Pier (2)	2	2	2	2	2	2	2
Floor Construction: Slab							
(V/V) :rooff bnuorg	П	5		П	П	П	Г
Do people live on	>	~	>	_	N A	>	>
Storeys	A 3	M 3	M 2	M 2		4	_
Wacant (V) Premises Size (S,M,L)	Σ	2	2	2	S	S	V
Resid (R), School (S),							
Land Use: Comm (C), Indust (I), Public (P),	~	~	~	~		~	
Unit Number	œ		~	П	Ť		Г
	N/A	N/A	N/A	N/A	N/A	N/A	NIA
<del>dudu2</del>	RUSHCUTTERS BAY NSW 2011 N/A	RUSHCUTTERS BAY NSW 2011 N/A	RUSHCUTTERS BAY NSW 2011 N/A	BLISHCLITTERS BAY NEW 2011 N/A			
	W 20	W 20	W 20	W 20	W 20	W 20	N N
	NSI	NS	NSI	NSI	NSI	NS	NSI
	BAY	BAY	BAY	BAY	BAY	BAY	DAV
	TERS	TERS	TERS	TERS	TERS	TERS	TEDS
	5	Tho	Tho	5	150	150	E
	USH	USH	USH	USH	USH	USH	INT
	~	22	~	~	æ	æ	
әшем 1әә.лс					s	s	į,
Street Name		*	eet	tee.	Roslyn Gardens	Roslyn Gardens	Bockyn Gardens
Street Name	,eet	ě	- 25	Str	n Ga	n Ga	0
этей 19912	n Street	n Stree	n St		>	sk	-chy
Street Name	oslyn Street	oslyn Stre	oslyn St	oslyr	lso	0	,
Street Number	Roslyn Street	Roslyn Street	Roslyn Street	Roslyn Street			
	35 Roslyn Street	35 Roslyn Stree	33 Roslyn St	33 Roslyr	44 Rost	42 Ro	
	35	35	33	33	44	42	40
зәдшпү тәәзг							2550 AN B

Brick stone or rendered (B), Clad (C), Mixed (M) Σ Pier (P) or Slab (S) Other Construction NON RESIDENTIAL BUILDINGS Floor Area 2634 6127 2768 6022 158 695 Floor Level (mAHD) 47.422 44.643 45.028 41.020 47.104 45.390 | Nature of Files | Use/Business eg. | Bob's Nursery, toilet block St Vincent's Healthcare Italian Cuisine St Vincent's Healthcare ST VINCENTS St Vincent's St Vincent's Medicine Healthcare School of HOSPITAL industrial=1, (commercial Brick stone or rendered (B), Clad Σ Σ Σ Σ В В В В 8 œ B Slab (S) Other - describe Construction Do people House Size -(M), Large Ξ Ground Floor (Y or Z z z z z z z Lowest Habitable G Floor Level (mAHD) 27.678 50.376 50.619 48.179 46.906 24.228 24.533 49.92 50.19 49.98 50.11 50.02 50.38 50.33 50.444 50.082 50.025 50.137 25.083 25.083 27.685 26.742 Ground Level (mAHD) 49.80 49.80 49.89 49.89 50.13 50.34 50.44 48.81 49.61 49.84 49.93 46.61 46.83 43.83 43.75 23.90 24.20 24.63 24.63 27.62 27.25 49.61 50.13 50.24 46.53 43.86 45.01 26.51 Northing (m) 6249473.805 6249454.754 6249453.171 6249446.684 6249445.376 6249430.833 6249424.828 6249421.053 6249414.800 6249509.996 6249424.111 6249417.005 6249415.126 6249547.280 6249583.029 6249574.224 6249623.333 6249601.263 6249618.393 6249645.702 6249724.094 6249713.496 6249703.894 6249703.894 6249683.703 6249670.000 6249675.311 6249434.1 Easting (m) 335185,955 335189.603 335188.646 335189.674 335191.872 335193.722 335194.636 335194.026 335194.995 335205.660 335257.908 335256.749 335257.558 335186.408 335264.508 335209.356 335266.550 335328.365 335303.445 335363.509 335659.586 335653.846 335648.032 335648.032 335584.164 335613.801 335587.867 335189.897 Darlinghurst Boundary Darlinghurst Boundary Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Sub-Area Victoria Victoria Victoria Victoria Boundary Boundary Leichhard Taylor Street South Dowling South Dowling South Oxford Oxford Street Dowling Sturt street 14 355 160 229 303 438 303 406 18 351 353 51 53 55 1-7 20 22 24 28 30 32 34 36 36 11 49 56 Total number Comment of buildings Exit Gate Chisolm street/22,24.JPG Chisolm street/22,24.JPG Chisolm street/36.JPG
Taylor
Street/36.JPG
South Dowling /30.JPG
Chisolm street
/32.JPG
Chisolm street
/34.JPG
Chisolm /18,20.JPG Chisolm street street/28.JPG Chisolm street South Dowling Street/353.JPG South Dowling Street/355.JPG Street/303(2).JPG street/160.JPG street/229.JPG Leichhardt Street/9.JPG Street/11.JPG Street/438.JPG Street/303.JPG Street/406.JPG Chisolm street Street/49.JPG Street/51.JPG Street/53.JPG Street/55.JPG Street/1-7.JPG Street/26.JPG Leichhardt /18,20.JPG Street/351 Boundary Boundary Boundary Boundary Leichhardt Victoria Victoria Victoria Victoria Oxford Oxford Sturt cadastre (LIC\_TAG) Council 176179 176180 176185 529065 176181 176182 176184 176186 176187 176188 184564 183954 183956 183958 184389 523422 523465 532288 532442 532288 532435 525010 525011 525014 529060 529079 525012

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

Pier (P) or Slab (S) Other Construction Floor Level (mAHD) Brick stone or rendered (B), Clad В В 8 œ B Slab (S) Other - describe Construction Do people House Size -Medium (M), Large 3 Ground Floor (Y or Z 27.199 27.193 27.746 27.829 27.825 28.141 15.956 23.821 27.511 23.024 28.142 29.083 29.012 29.082 29.434 29.571 27.959 22.402 18.811 18.48 18.48 17.962 17.962 17.095 17.095 22.767 23.862 23.821 Ground Level (mAHD) 26.89 27.14 27.14 27.41 22.39 27.72 28.77 28.77 29.21 27.30 21.57 17.90 17.46 17.46 16.93 16.93 16.25 16.25 15.06 21.93 23.61 23.85 24.17 26.77 27.72 28.57 29.21 6249773.649 6249657.661 6249635.298 6249635.298 6249629.700 6249629.700 6249624.125 6249624.125 6249614.274 6249607.549 6249607.549 6249640.726 6249791.848 6249813.105 6249816.092 6249816.092 6249820.704 6249820.704 6249825.440 6249825.440 6249833.101 6249801.936 6249780.330 6249777.447 335657.065 Easting (m) 335596.070 335598.088 335577.382 335577.382 335570.710 335570.710 335563.965 335683.737 335563.965 335551.759 335555.456 335551.759 335543.708 335543.708 335583.970 335695.538 335757.519 335763.485 335763,485 335771.543 335771.543 335780.678 335780.678 335793.215 335686.505 335661.312 335661.562 Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Boundary Darlinghurst Boundary Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Sub-Area Street Boundary Street Street Boundary Street Boundary Street Street Street Liverpool Boundary Boundary Boundary Boundary Boundary Boundary Boundary Liverpool Street Barcom Street Street Street Street Barcom Street Street Street Street Street Street Street Street Street 17 475 467 178 180 182 59 19 63 65 67 69 71 47 73 11 75 79 81 83 61 41 37 39 35 33 31 27 Total number Comment of buildings Boundary
Street/69-67.JPG
Boundary
Street/71-73.JPG
Boundary
Street/71-73.JPG Street/79-77.JPG Boundary Street/75.JPG Boundary Street/65-63.JPG Boundary Street/71-73.JPG Street/79-77.JPG Boundary Avenue/182.JPG Street/65-63.JPG Street/81-83.JPG Street/81-83.JPG Street/475.JPG Street/467.JPG Street/17.JPG Street/19.JPG Street/61.JPG Street/41.JPG Street/37.JPG Street/39.JPG Street/35.JPG Street/33.JPG Street/31.JPG Street/29.JPG Street/27.JPG Avenue/178-Avenue/178-Boundary Leichhardt Boundary Boundary Boundary Boundary Boundary Boundary Boundary Boundary Liverpool Barcom Barcom cadastre (LIC\_TAG) Council 529075 525026 525019 525021 525022 525025 525024 525027 525028 525015 529387 525002 525000 525001 524999 524998 524997 524996 529383 524340 524341 525007 524995

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

Brick stone or rendered (B), Clad (C), Mixed (M) Pier (P) or Slab (S) Other Construction describe NON RESIDENTIAL BUILDINGS Floor Area (m<sub>2</sub>) 3616 3018 139 179 Floor Level (mAHD) RHS HOTEL INVESTMENTS CAR REPAIRER THE UNITING COFFE SHOP CHURCH IN Brick stone or rendered (B), Clad В В В В B В 8 В В Medium Pier [P) or re [M), Large Slab (S) Other [L] - describe Construction RESIDENTIAL BUILDINGS Do people House Size -Ground Floor (Y or Z z z z Lowest Number Discrete Discret 10 25.529 25.138 24.192 64.468 15.920 25.298 25.298 25.298 15.920 6.308 5.609 12.27 65.157 21.561 16.00 8.85 9.53 3.34 Ground Level (mAHD) 23.86 16.915 16.915 21.396 24.90 24.38 24.38 24.38 12.01 62.29 65.11 16.92 24.07 3.20 8.70 6.39 6.81 86.8 Northing (m) 6249851.110 335631.313 6249772.807 6249774.384 6249764.591 6249764.591 6249764.591 6250171.658 6250129.060 6250240.846 6250250.900 2650321.015 6248983.517 6248961.424 335983.314 6250067.387 6250067.387 6250075.129 6249940.105 335654.145 335643.633 335642.466 335642.466 336217.454 336220.232 336061.217 336039.522 336106.461 335983.314 335716.470 336004.380 Easting (m) 335642.466 336285.821 336295.081 335996.900 Bay Rushcutters Bay Rushcutters Bay Rushcutters Bay Rushcutters Darlinghurst Darlinghurst Darlinghurst Rushcutters Sub-Area Darlinghurst Darlinghurst Darlinghurst Paddington Womerah Darlinghurst Darlinghurst Darlinghurst Darlinghurst Darlinghurst Paddington r Rd Bayswate r Rd Barcom Street Barcom Oxford McLachla Oxford West Barcom Barcom Barcom n Ave street Place Place Ave Ave Ave 153 to 167 391 to 393 Street 1 to 5 1 to 7 115 160 5-6 184 188 190 192 100 395 71 27 10 Total number Comment of buildings Bayswater Rd/100.JPG Bayswater Rd/153-Barcom Avenue/188.JPG Barcom Avenue/188.JPG Barcom Avenue/188.JPG 167.JPG Clement Place/1-Place/7.JPG Queens Avenue/1-Avenue/160.JPG Womerah Ave/8,2 Avenue/115.JPG street/391.JPG Oxford Avenue/184.JPG Womerah Ave/8, Womerah Ave/8,2 street/395.JPG Avenue/27.JPG Photo name Ave/71.JPG McLachlan Clement 6,10.JPG 6,10.JPG 6,10.JPG Barcom Oxford Barcom 7.JPG West 5.JPG cadastre (LIC\_TAG) 524313 Council 529682 532719 524343 524346 526321 526330 202342 532945 532948 532939 524344 524347 524589 524611 533292 181991 524327

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