

File number: 153221

2 September 2024

Homes NSW

Dear Howard Taylor

Flood advice: 1 Robyn Street Blacktown being Lot 197 in DP 32163

I refer to your request for flood advice on 31/07/2024 and provide the following flood information for the above property.

Do flood planning controls currently apply?

1.	Flood planning area controls – Riverine	No
2.	Flood planning area controls – Overland	Yes
3.	State Environmental Planning Policy controls	No

What other considerations may apply?

4.	Special flood consideration	Yes
5.	Drainage constraints	Yes

What this means for your property

If we have answered 'Yes' to any of the Flood planning controls at 1, 2 or 3 above, a flood study will be required for development.

If we have answered 'Yes' at 4 above, a flood study will be required if your development is considered sensitive or hazardous and is located within any part of the floodplain.

If we have answered 'Yes' at 5 above, a flood study may be required.

Where to find more information

The following pages set out more detailed information on the above where it relates to your property, along with other relevant flood related information. If you have any queries on this, please contact one of our Floodplain Officers by phoning 02 9839 6350 or emailing floodadvice@blacktown.nsw.gov.au

If you have any queries on development of your land, please contact one of our Planners by phoning 02 5300 6000, or emailing gateway.team@blacktown.nsw.gov.au.

Yours faithfully

Naomi Harris

Coordinator Floodplain and Stormwater

Attachments

- 1. Details on our flood information for your property
- 2. Flood modelling and floor levels
- 3. General flood information, including definitions
- 4. Flood maps

Disclaimer

The information contained in this letter is only valid on the date of issue. This letter has been prepared with all due care and in good faith using the best information available to us.

We provide no warranties in relation to the completeness or accuracy of the information contained in this letter, and do not accept liability for any loss or damage resulting from, or in connection with, its contents or its use.

There may be other non-flood related matters that might impact on the use of the land.

We strongly recommend that, in all cases, you seek independent professional advice to supplement your enquiries. A more detailed assessment at development application stage may result in modifications and/or additions to these comments. This advice is not a guarantee of approval.

We can supply additional information, such as ALS/Lidar data for a fee. Contact floodadvice@blacktown.nsw.gov.au for this information.

From the 3 July 2024, our flood risk precincts in this area were updated to reflect new information in the Blacktown Overland Flow Flood Study. Further information can be found here: https://www.blacktown.nsw.gov.au/Our-environment/Waterways/Flooding-in-the-Blacktown-local-government-area/Flood-studies. We may have draft information about other flood studies that has not been included in this letter.



Attachment 1: Details on our flood information for your property

1. Flood planning area controls – Riverine

This property is not identified as being in any of the flood precincts of the Breakfast Creek floodplain.

2. Flood planning area controls – Overland flow

This property is identified as being in the Overland Flow Medium Flood Risk Precinct. Maps showing the extent of adopted overland flow flooding are at attachment 4.

The flood planning level for this property is 44.25 mAHD

The flood information in the table below details the maximum and minimum flood values (within the model grid) identified across the property. Definitions of the various elements within the table are at attachment 3.

	1% AEP Flood	PMF
Maximum flood level (metres AHD)	43.95	45.27
Minimum flood level (metres AHD)	43.84	44.74
Maximum flood depth (metres)	0.24	1.33
Minimum flood depth (metres)	0.00	0.18
Maximum velocity (metres/second)	0.97	1.72
Minimum velocity (metres/second)	0.00	0.16
Maximum hazard (H1 to H6)	H1	H5
Minimum hazard (H1 to H6)	H1	H1

The flood maps attached are based on the results of Engineering Flood Studies commissioned by NSW Government authorities and Blacktown City Council. These maps indicate that the subject land lies partly or wholly within the Local Overland Flooding extents.

As a Flood Control Lot, it does not meet the criteria of an exempt or complying development as detailed by the <u>State Environmental Planning Policy (Exempt and Complying Development Codes)</u> 2008 – Section 3.36C.

General requirements for use of this land are in the <u>Blacktown Development Control</u> <u>Plan 2015 – Chapter 9 'Development on Flood Prone Land'</u>. The property must meet the controls set out prior to approval of development.

Where proposed development extends into the Local Overland Flooding Area a flood study may be required to ensure no adverse impacts occur.

Flood modelling requirements are detailed in our Water Sensitive Urban Design Developer Handbook. Further details are in the NSW Government Floodplain Risk Management Manual.



We do not warrant that information provided or made available to you is complete. We strongly recommend that, in all cases, you seek independent professional advice to supplement your enquiries.

3. Flood planning area controls - State Environmental Planning Policy

This property is not located within an area identified as being part of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006, known as the SEPP, flood mapping for the rezoning and redevelopment of the area.

The flood maps attached are based on the results of Engineering Flood Studies commissioned by NSW Government authorities and Blacktown City Council. These maps indicate that the subject land lies partly or wholly within the SEPP Mapping Area provided by the Department of Planning, Housing and Infrastructure.

The SEPP Mapping Area is the area of land situated below the Flood Planning Level, which is defined as the 1% AEP.

As a Flood Control Lot, it does not meet the criteria of an exempt or complying development as detailed by the <u>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 – Section 3.36C.</u>

General requirements for the use of this land are outlined in the <u>Blacktown City Council Priority Precincts Development Control Plan</u> as prepared by the Department of Planning, Housing and Infrastructure. The property must meet the controls set out prior to approval of development.

Where proposed development extends into the SEPP Mapping Area, a flood study may be required to ensure no adverse impacts occur.

Flood modelling requirements are detailed in our <u>Water Sensitive Urban Design</u> <u>Developer Handbook</u>. Further details are in the <u>NSW Government Floodplain Risk</u> <u>Management Manual</u>.

4. Special flood consideration

Special flood considerations apply to certain types of development that have been identified as having a higher risk to life and warranting the consideration of the impacts of rarer flood events on land located outside the flood planning area.

Controls apply to the following sensitive or hazardous development being undertaken on any part of the floodplain.

Hospitals, telecommunication towers, large power supply stations, emergency services facilities (police, ambulance and fire stations, centre-based child care, early education and care facilities, correctional centres, educational establishments, residential care facilities, respite day-care centres, seniors housing, group homes.



5. Drainage constraints

	Present on property	Details
Pipes	Yes	Ø1200mm diameter pipe
Drainage easements	Yes	6.1 metre (20ft) wide easement to drain water
Waterways or channels	No	N/A



Attachment 2: Flood modelling and floor level requirements

Flood studies must comply with general requirements for flood modelling

These are outlined in:

- Blacktown Development Control Plan 2015, Part A, Chapter 9.
 This document is published on our website:
 https://www.blacktown.nsw.gov.au/files/assets/public/v/2/building-and-planning/dcps-amp-lap/part-a-introduction-and-general-guidelines waste.pdf
- General requirements for Flood Modelling are outlined in our Water sensitive urban design developer handbook. Chapter 15.3: Design Standards outlines a number of different developments, and states minimum requirements with regards to flooding.

This document is published on our website: https://www.blacktown.nsw.gov.au/Plan-build/Stage-2-plans-and-guidelines/Developers-toolkit-for-water-sensitive-urban-design-WSUD/MUSIC-modelling

In addition to a flood study

A preliminary minimum floor level would be required to be the higher of:

- a minimum of 225 mm above finished ground levels, or
- the highest adjacent 1% Annual Exceedance Probability (AEP)
 - o riverine flow level plus 500 mm, or
 - overland flow level plus 300 mm.

A development application must provide a detail survey to Australian Height Datum and be certified (signed) by a registered surveyor. The survey is to include:

- sufficient spot levels with contours
- any existing floor levels
- the origin and level of the benchmark used and a local benchmark on top of kerb installed for use during construction.

Any future development within the 1% AEP flood area would have to prove that it does not increase the flood risk to life or the surrounding area and it must maintain an appropriate overland flow path.

We will not allow the importing of any fill within the 1% AEP flood area.

You must submit a copy of this Flood Advice Letter, the Flood Study Report and electronic files of the Flood Model with any development application for the site.



Definitions

AEP	stands for 'Annual Exceedance Probability'. This is the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. A 1% AEP flood has a 1% chance of occurring in any given year.
PMF	stands for 'Probable Maximum Flood' The PMF is the largest flood that could conceivably be expected to occur at a given location. The PMF defines the maximum extent of flood prone land, that is, the floodplain.
Flood level	is the elevation of the flood surface above Australian Height Datum (AHD). Australian Height Datum is the official national vertical datum for Australia which is a plane of level corresponding approximately to mean sea level.
Flood depth	is calculated by subtracting the Flood Level from the ground elevations defined by 2018 LiDAR aerial survey data
Velocity	is the speed of the flowing flood water
Hazard	is defined in Figure 6.7.9 Book 6 Chapter 7 of Australian Rainfall and Runoff 2019 and identifies the potential risk that floodwaters pose to people, property and vehicles. A copy of Figure 6.7.9 is below.
Freeboard	is a factor of safety expressed in metres above a flood level for purposes of floodplain management

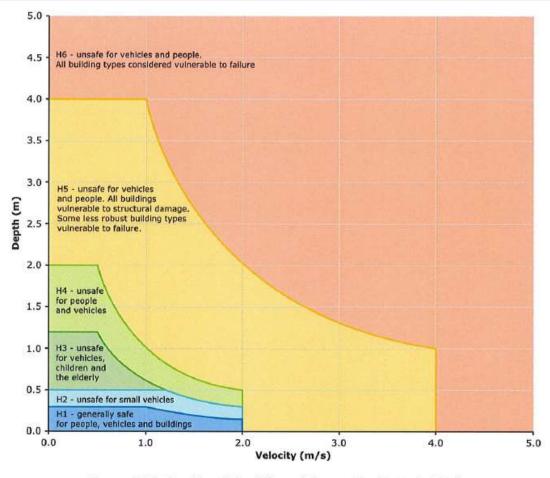


Figure 6.7.9. Combined Flood Hazard Curves (Smith et al., 2014)



The flood levels supplied are for the pre-developed existing conditions

The flood levels supplied do not take climate change into consideration. These flood levels should not be used to set floor levels or to identify the extent of flooding over the property as our current flood models may not have included blockage factors nor changes in land-use and landform since the date of the study.

Flood Planning Area

Land which lies below the Flood Planning Level.

Properties that lie either partially or wholly within the extent of the Flood Planning Area are subject to a s10.7 certificate flood affectation notification, and as such are subject to the flood related development controls set out in the Blacktown Local Environmental Plan 2015 and the Development Control Plan relevant to the property.

Flood Planning Level

The Flood Planning Level for Blacktown City is a combination of defined flood event and freeboard.

We use 1% AEP for the defined flood event, and include a freeboard appropriate for the land use. For residential properties in Blacktown City, this is 500mm metres for riverine flooding and 300mm for overland flow.

Flood risk precincts

Precincts have been defined based on hydraulic and survey information available to Council for both local overland and riverine flooding. In many cases a more definitive indication of flood risk precinct extents can be determined by relating surveyed ground levels at AHD to the relevant hydraulic and/or flood level criteria.

The Low Flood Risk Precinct is equivalent to the floodplain and flood prone land. This includes all land that is flood affected by flooding in some capacity, up to and including the PMF, except for areas that have already been identified as being within the high or medium flood risk precinct.

The Medium Flood Risk Precinct is equivalent to the flood planning area, except for areas that have already been identified as being within the high flood risk

The High Flood Risk Precinct includes areas of the floodplain which convey a significant discharge of water during floods. They often align with naturally defined channels and are equivalent to the floodway or high hazard areas.



'Development on Flood Prone Land' guidelines

Our guidelines can be found in Blacktown Development Control Plan 2015 Part A.

This document is on our website <u>Blacktown</u> <u>Development Control Plan 2015 – Chapter 9</u>
<u>'Development on Flood Prone Land'</u> This publication is currently under review in respect of floodplain planning issues.

Council's flood mapping is available on our website

To start, click Discover Blacktown tab on the home page and then select Maps Online and follow the instructions.

Our flood mapping only covers the areas where we have information.

A property that is not identified does not mean that there are no flood issues.

It is the responsibility of the person enquiring to check the natural fall of the land and to ensure that the subject property is not affected by local stormwater overland flows that might affect existing or future development on this land.

State Environmental Planning Policy (SEPP) flood mapping

The property is subject to *State Environmental Planning Policy (Sydney Region Growth Centres)* 2006. It is identified on the Development Control Map as 'Flood Prone and Major Creeks Land'.

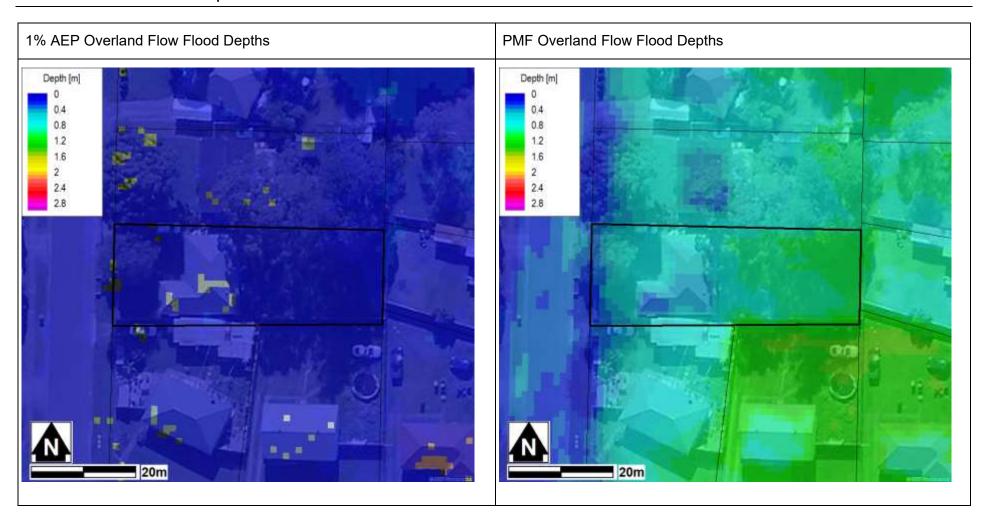
Clause 19 of the Growth Centres SEPP provides heads of consideration when a development application is lodged on land affected by 'Flood Prone and Major Creeks Land'.

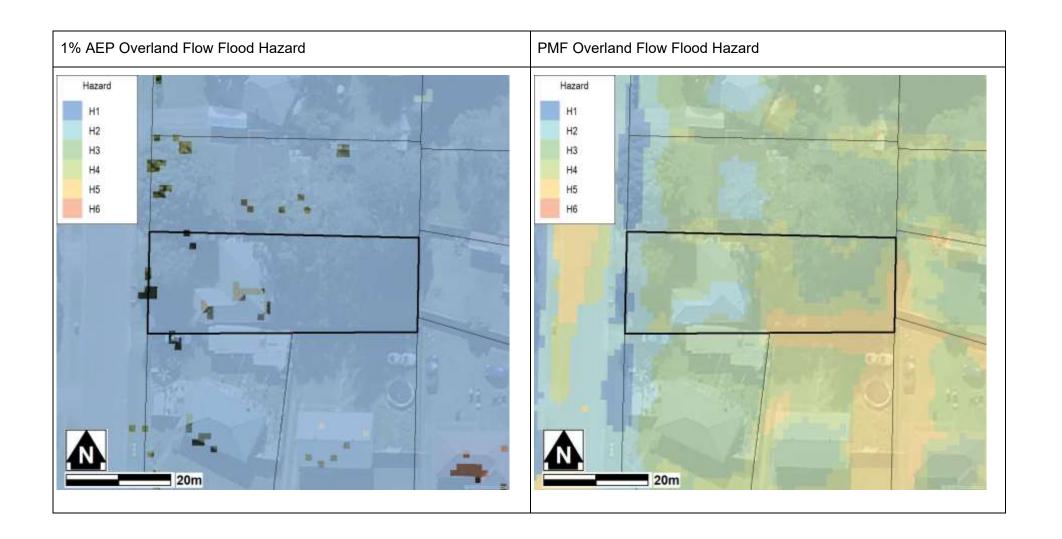
The SEPP maps (shown as light blue hatching) indicate the extent of flood prone land based on existing conditions at the time of preparing the precinct planning. Therefore, they may not include any changes resulting from subsequent development or infrastructure works.



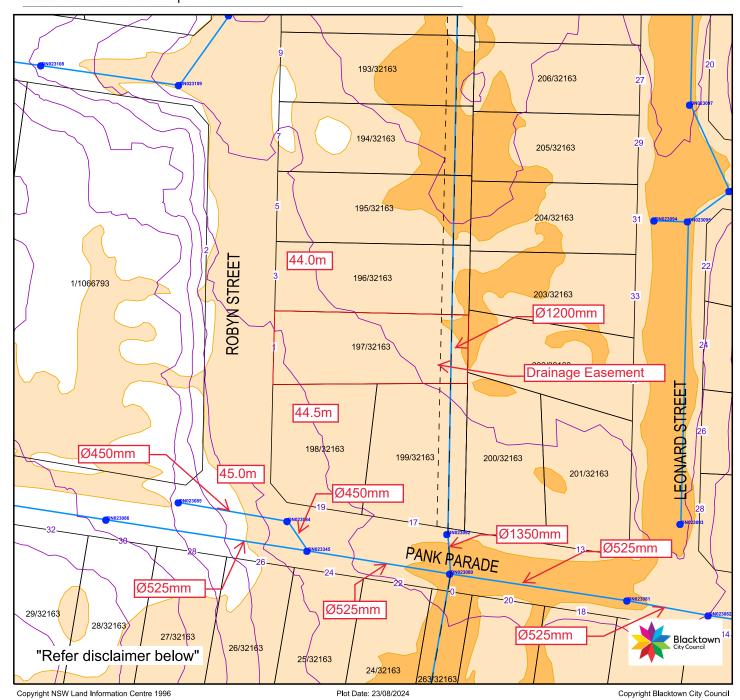


Attachment 4: Flood maps





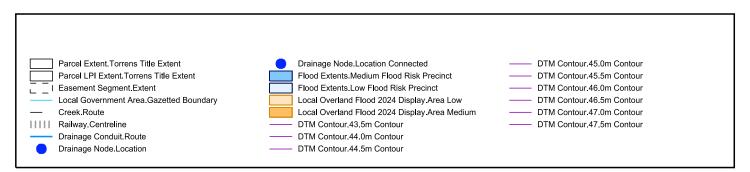




BLACKTOWN CITY COUNCIL Flood Risk Map

DISCLAIMER: The flood risk precincts shown are based on information available to Council and should be regarded as an indicative guide only. A more accurate indication of the extent of the respective flood risk precincts can be determined by relating surveyed ground levels at Australian Height Datum (AHD) to the hydraulic and/or flood level criteria determining flood risk precinct boundaries. This information may be obtained by a written request to Council accompanied by a ground level survey to AHD prepared by a Registered Surveyor. Should flood risk precinct extents be required for the purpose of a financial transaction of any nature, then the parties to that transaction should apply to Council for formal certification and/or seek independent legal or professional advice.





Plotted by: swadmin a4_bcic_flood_portait_external.xml



File number: 153219

2 September 2024

Homes NSW

Dear Howard Taylor

Flood advice: 17 Pank Parade Blacktown being Lot 199 in DP 32163

I refer to your request for flood advice on 31/07/2024 and provide the following flood information for the above property.

Do flood planning controls currently apply?

1.	Flood planning area controls – Riverine	No
2.	Flood planning area controls – Overland	No
3.	State Environmental Planning Policy controls	No

What other considerations may apply?

4.	Special flood consideration	Yes
5.	Drainage constraints	Yes

What this means for your property

If we have answered 'Yes' to any of the Flood planning controls at 1, 2 or 3 above, a flood study will be required for development.

If we have answered 'Yes' at 4 above, a flood study will be required if your development is considered sensitive or hazardous and is located within any part of the floodplain.

If we have answered 'Yes' at 5 above, a flood study may be required.

Where to find more information

The following pages set out more detailed information on the above where it relates to your property, along with other relevant flood related information. If you have any queries on this, please contact one of our Floodplain Officers by phoning 02 9839 6350 or emailing floodadvice@blacktown.nsw.gov.au

If you have any queries on development of your land, please contact one of our Planners by phoning 02 5300 6000, or emailing gateway.team@blacktown.nsw.gov.au.

Yours faithfully

Naomi Harris

Coordinator Floodplain and Stormwater

Attachments

- 1. Details on our flood information for your property
- 2. Flood modelling and floor levels
- 3. General flood information, including definitions
- 4. Flood maps

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We strongly recommend that, in all cases, you seek independent professional advice to supplement your enquiries. A more detailed assessment at development application stage may result in modifications and/or additions to these comments. This advice is not a guarantee of approval.

We can supply additional information, such as ALS/Lidar data for a fee. Contact floodadvice@blacktown.nsw.gov.au for this information.

From the 3 July 2024, our flood risk precincts in this area were updated to reflect new information in the Blacktown Overland Flow Flood Study. Further information can be found here: https://www.blacktown.nsw.gov.au/Our-environment/Waterways/Flooding-in-the-Blacktown-local-government-area/Flood-studies. We may have draft information about other flood studies that has not been included in this letter.



Attachment 1: Details on our flood information for your property

1. Flood planning area controls – Riverine

This property is not identified as being in any of the flood precincts of the Breakfast Creek floodplain.

2. Flood planning area controls - Overland flow

This property is identified as being in the Overland Flow Low Flood Risk Precinct. Maps showing the extent of adopted overland flow flooding are at attachment 4.

3. Flood planning area controls - State Environmental Planning Policy

This property is not located within an area identified as being part of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006, known as the SEPP, flood mapping for the rezoning and redevelopment of the area.

4. Special flood consideration

Special flood considerations apply to certain types of development that have been identified as having a higher risk to life and warranting the consideration of the impacts of rarer flood events on land located outside the flood planning area.

Controls apply to the following sensitive or hazardous development being undertaken on any part of the floodplain.

Hospitals, telecommunication towers, large power supply stations, emergency services facilities (police, ambulance and fire stations, centre-based child care, early education and care facilities, correctional centres, educational establishments, residential care facilities, respite day-care centres, seniors housing, group homes.

5. Drainage constraints

	Present on property	Details
Pipes	Yes	Ø1200mm diameter pipe
Drainage easements	Yes	6.1metre (20ft) wide easement to drain water
Waterways or channels	No	N/A



Attachment 2: Flood modelling and floor level requirements

Flood studies must comply with general requirements for flood modelling

These are outlined in:

- Blacktown Development Control Plan 2015, Part A, Chapter 9.
 This document is published on our website:
 https://www.blacktown.nsw.gov.au/files/assets/public/v/2/building-and-planning/dcps-amp-lap/part-a-introduction-and-general-guidelines waste.pdf
- General requirements for Flood Modelling are outlined in our Water sensitive urban design developer handbook. Chapter 15.3: Design Standards outlines a number of different developments, and states minimum requirements with regards to flooding.

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In addition to a flood study

A preliminary minimum floor level would be required to be the higher of:

- a minimum of 225 mm above finished ground levels, or
- the highest adjacent 1% Annual Exceedance Probability (AEP)
 - o riverine flow level plus 500 mm, or
 - overland flow level plus 300 mm.

A development application must provide a detail survey to Australian Height Datum and be certified (signed) by a registered surveyor. The survey is to include:

- sufficient spot levels with contours
- any existing floor levels
- the origin and level of the benchmark used and a local benchmark on top of kerb installed for use during construction.

Any future development within the 1% AEP flood area would have to prove that it does not increase the flood risk to life or the surrounding area and it must maintain an appropriate overland flow path.

We will not allow the importing of any fill within the 1% AEP flood area.

You must submit a copy of this Flood Advice Letter, the Flood Study Report and electronic files of the Flood Model with any development application for the site.



Definitions

AEP	stands for 'Annual Exceedance Probability'. This is the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. A 1% AEP flood has a 1% chance of occurring in any given year.
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Flood depth	is calculated by subtracting the Flood Level from the ground elevations defined by 2018 LiDAR aerial survey data
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Hazard	is defined in Figure 6.7.9 Book 6 Chapter 7 of Australian Rainfall and Runoff 2019 and identifies the potential risk that floodwaters pose to people, property and vehicles. A copy of Figure 6.7.9 is below.
Freeboard	is a factor of safety expressed in metres above a flood level for purposes of floodplain management

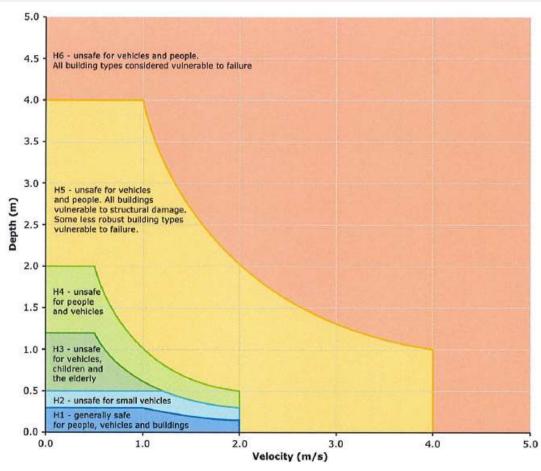


Figure 6.7.9. Combined Flood Hazard Curves (Smith et al., 2014)



The flood levels supplied are for the pre-developed existing conditions

The flood levels supplied do not take climate change into consideration. These flood levels should not be used to set floor levels or to identify the extent of flooding over the property as our current flood models may not have included blockage factors nor changes in land-use and landform since the date of the study.

Flood Planning Area

Land which lies below the Flood Planning Level.

Properties that lie either partially or wholly within the extent of the Flood Planning Area are subject to a s10.7 certificate flood affectation notification, and as such are subject to the flood related development controls set out in the Blacktown Local Environmental Plan 2015 and the Development Control Plan relevant to the property.

Flood Planning Level

The Flood Planning Level for Blacktown City is a combination of defined flood event and freeboard.

We use 1% AEP for the defined flood event, and include a freeboard appropriate for the land use. For residential properties in Blacktown City, this is 500mm metres for riverine flooding and 300mm for overland flow.

Flood risk precincts

Precincts have been defined based on hydraulic and survey information available to Council for both local overland and riverine flooding. In many cases a more definitive indication of flood risk precinct extents can be determined by relating surveyed ground levels at AHD to the relevant hydraulic and/or flood level criteria.

The Low Flood Risk Precinct is equivalent to the floodplain and flood prone land. This includes all land that is flood affected by flooding in some capacity, up to and including the PMF, except for areas that have already been identified as being within the high or medium flood risk precinct.

The Medium Flood Risk Precinct is equivalent to the flood planning area, except for areas that have already been identified as being within the high flood risk

The High Flood Risk Precinct includes areas of the floodplain which convey a significant discharge of water during floods. They often align with naturally defined channels and are equivalent to the floodway or high hazard areas.



'Development on Flood Prone Land' guidelines

Our guidelines can be found in Blacktown Development Control Plan 2015 Part A.

This document is on our website <u>Blacktown</u> <u>Development Control Plan 2015 – Chapter 9</u>
<u>'Development on Flood Prone Land'</u> This publication is currently under review in respect of floodplain planning issues.

Council's flood mapping is available on our website

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Our flood mapping only covers the areas where we have information.

A property that is not identified does not mean that there are no flood issues.

It is the responsibility of the person enquiring to check the natural fall of the land and to ensure that the subject property is not affected by local stormwater overland flows that might affect existing or future development on this land.

State Environmental Planning Policy (SEPP) flood mapping

The property is subject to State Environmental Planning Policy (Sydney Region Growth Centres) 2006. It is identified on the Development Control Map as 'Flood Prone and Major Creeks Land'.

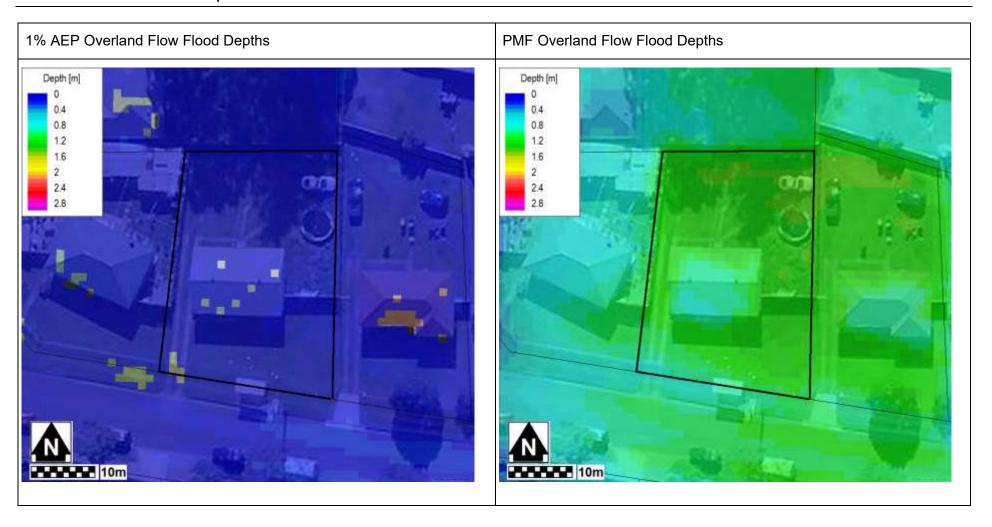
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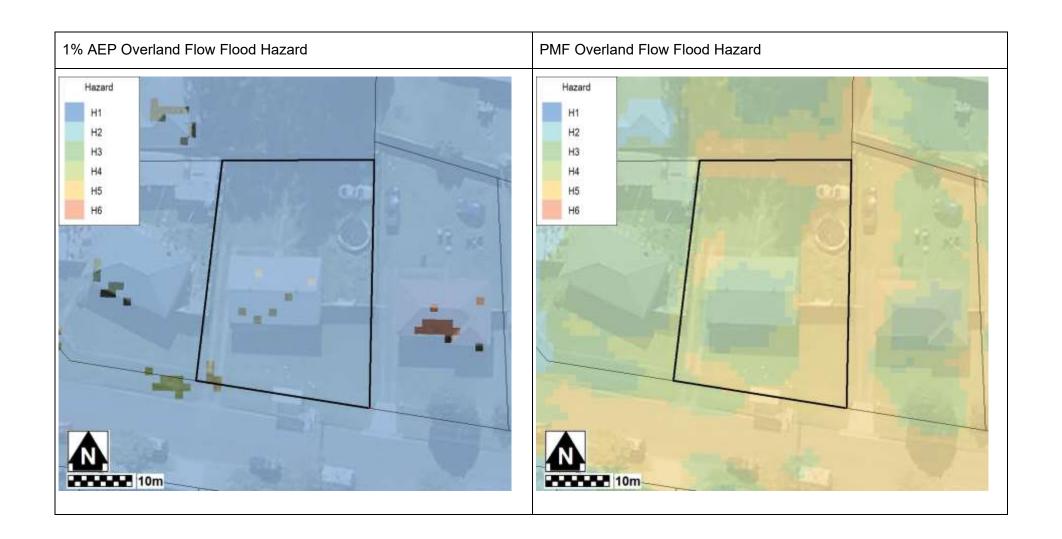
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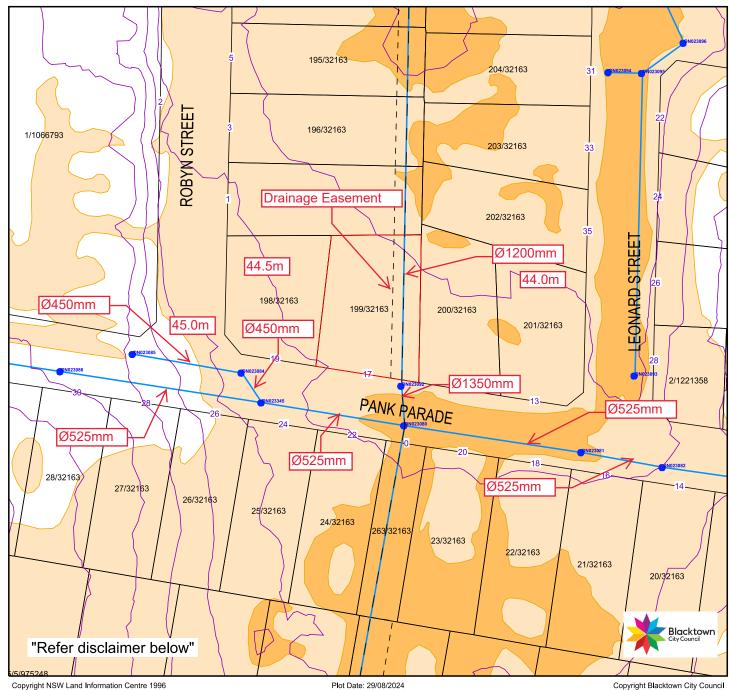


Attachment 4: Flood maps









Plot Date: 29/08/2024

Copyright Blacktown City Council

BLACKTOWN CITY COUNCIL Flood Risk Map

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DTM Contour.45.0m Contour DTM Contour.45.5m Contour DTM Contour 46.0m Contour DTM Contour.46.5m Contour DTM Contour.47.0m Contour

Parcel Extent. Torrens Title Extent Parcel LPI Extent. Torrens Title Extent Easement Segment.Extent Local Government Area.Gazetted Boundary Creek.Route Ш Railway.Centreline Drainage Conduit.Route Drainage Node.Location

Drainage Node.Location Connected Flood Extents.Medium Flood Risk Precinct Flood Extents.Low Flood Risk Precinct Local Overland Flood 2024 Display. Area Low Local Overland Flood 2024 Display.Area Medium DTM Contour 43.5m Contour DTM Contour.44.0m Contour DTM Contour.44.5m Contour

DTM Contour 47.5m Contour



File Number: 153220

2 September 2024

Homes NSW

Dear Howard Taylor

Flood advice: 19 Pank Parade Blacktown being Lot 198 in DP 32163

I refer to your request for flood advice on 31/07/2024 and provide the following flood information for the above property.

Do flood planning controls currently apply?

1.	Flood planning area controls – Riverine	No
2.	Flood planning area controls – Overland	No
3.	State Environmental Planning Policy controls	No

What other considerations may apply?

4.	Special flood consideration	Yes
5.	Drainage constraints	No

What this means for your property

If we have answered 'Yes' to any of the Flood planning controls at 1, 2 or 3 above, a flood study will be required for development.

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Yours faithfully

Naomi Harris

Coordinator Floodplain and Stormwater

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Attachment 1: Details on our flood information for your property

1. Flood planning area controls – Riverine

This property is identified as being in the Low flood precincts of the Breakfast Creek floodplain. Maps showing the extent of adopted riverine flooding are at attachment 4.

2. Flood planning area controls - Overland flow

This property is identified as being in the Overland Flow Low Flood Risk Precinct. Maps showing the extent of adopted overland flow flooding are at attachment 4.

3. Flood planning area controls - State Environmental Planning Policy

This property is not located within an area identified as being part of the State Environmental Planning Policy (Sydney Region Growth Centres) 2006, known as the SEPP, flood mapping for the rezoning and redevelopment of the area.

4. Special flood consideration

Special flood considerations apply to certain types of development that have been identified as having a higher risk to life and warranting the consideration of the impacts of rarer flood events on land located outside the flood planning area.

Controls apply to the following sensitive or hazardous development being undertaken on any part of the floodplain.

Hospitals, telecommunication towers, large power supply stations, emergency services facilities (police, ambulance and fire stations, centre-based child care, early education and care facilities, correctional centres, educational establishments, residential care facilities, respite day-care centres, seniors housing, group homes.

5. Drainage constraints

	Present on property	Details
Pipes	No	N/A
Drainage easements	No	N/A
Waterways or channels	No	N/A



Attachment 2: Flood modelling and floor level requirements

Flood studies must comply with general requirements for flood modelling

These are outlined in:

- Blacktown Development Control Plan 2015, Part A, Chapter 9.
 This document is published on our website:
 https://www.blacktown.nsw.gov.au/files/assets/public/v/2/building-and-planning/dcps-amp-lap/part-a-introduction-and-general-quidelines-waste.pdf
- General requirements for Flood Modelling are outlined in our Water sensitive urban design developer handbook. Chapter 15.3: Design Standards outlines a number of different developments, and states minimum requirements with regards to flooding.

This document is published on our website: https://www.blacktown.nsw.gov.au/Plan-build/Stage-2-plans-and-guidelines/Developers-toolkit-for-water-sensitive-urban-design-WSUD/MUSIC-modelling

In addition to a flood study

A preliminary minimum floor level would be required to be the higher of:

- a minimum of 225 mm above finished ground levels, or
- the highest adjacent 1% Annual Exceedance Probability (AEP)
 - o riverine flow level plus 500 mm, or
 - overland flow level plus 300 mm.

A development application must provide a detail survey to Australian Height Datum and be certified (signed) by a registered surveyor. The survey is to include:

- sufficient spot levels with contours
- any existing floor levels
- the origin and level of the benchmark used and a local benchmark on top of kerb installed for use during construction.

Any future development within the 1% AEP flood area would have to prove that it does not increase the flood risk to life or the surrounding area and it must maintain an appropriate overland flow path.

We will not allow the importing of any fill within the 1% AEP flood area.

You must submit a copy of this Flood Advice Letter, the Flood Study Report and electronic files of the Flood Model with any development application for the site.



Definitions

AEP	stands for 'Annual Exceedance Probability'. This is the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage. A 1% AEP flood has a 1% chance of occurring in any given year.
PMF	stands for 'Probable Maximum Flood' The PMF is the largest flood that could conceivably be expected to occur at a given location. The PMF defines the maximum extent of flood prone land, that is, the floodplain.
Flood level	is the elevation of the flood surface above Australian Height Datum (AHD). Australian Height Datum is the official national vertical datum for Australia which is a plane of level corresponding approximately to mean sea level.
Flood depth	is calculated by subtracting the Flood Level from the ground elevations defined by 2018 LiDAR aerial survey data
Velocity	is the speed of the flowing flood water
Hazard	is defined in Figure 6.7.9 Book 6 Chapter 7 of Australian Rainfall and Runoff 2019 and identifies the potential risk that floodwaters pose to people, property and vehicles. A copy of Figure 6.7.9 is below.
Freeboard	is a factor of safety expressed in metres above a flood level for purposes of floodplain management

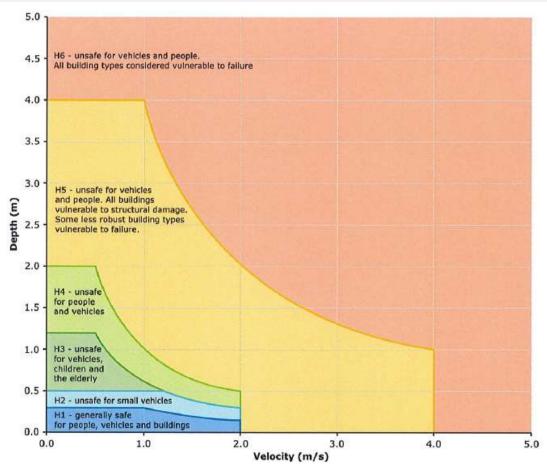


Figure 6.7.9. Combined Flood Hazard Curves (Smith et al., 2014)



The flood levels supplied are for the pre-developed existing conditions

The flood levels supplied do not take climate change into consideration. These flood levels should not be used to set floor levels or to identify the extent of flooding over the property as our current flood models may not have included blockage factors nor changes in land-use and landform since the date of the study.

Flood Planning Area

Land which lies below the Flood Planning Level.

Properties that lie either partially or wholly within the extent of the Flood Planning Area are subject to a s10.7 certificate flood affectation notification, and as such are subject to the flood related development controls set out in the Blacktown Local Environmental Plan 2015 and the Development Control Plan relevant to the property.

Flood Planning Level

The Flood Planning Level for Blacktown City is a combination of defined flood event and freeboard.

We use 1% AEP for the defined flood event, and include a freeboard appropriate for the land use. For residential properties in Blacktown City, this is 500mm metres for riverine flooding and 300mm for overland flow.

Flood risk precincts

Precincts have been defined based on hydraulic and survey information available to Council for both local overland and riverine flooding. In many cases a more definitive indication of flood risk precinct extents can be determined by relating surveyed ground levels at AHD to the relevant hydraulic and/or flood level criteria.

The Low Flood Risk Precinct is equivalent to the floodplain and flood prone land. This includes all land that is flood affected by flooding in some capacity, up to and including the PMF, except for areas that have already been identified as being within the high or medium flood risk precinct.

The Medium Flood Risk Precinct is equivalent to the flood planning area, except for areas that have already been identified as being within the high flood risk

The High Flood Risk Precinct includes areas of the floodplain which convey a significant discharge of water during floods. They often align with naturally defined channels and are equivalent to the floodway or high hazard areas.



'Development on Flood Prone Land' guidelines

Our guidelines can be found in Blacktown Development Control Plan 2015 Part A.

This document is on our website <u>Blacktown</u> <u>Development Control Plan 2015 – Chapter 9</u>
<u>'Development on Flood Prone Land'</u> This publication is currently under review in respect of floodplain planning issues.

Council's flood mapping is available on our website

To start, click Discover Blacktown tab on the home page and then select Maps Online and follow the instructions.

Our flood mapping only covers the areas where we have information.

A property that is not identified does not mean that there are no flood issues.

It is the responsibility of the person enquiring to check the natural fall of the land and to ensure that the subject property is not affected by local stormwater overland flows that might affect existing or future development on this land.

State Environmental Planning Policy (SEPP) flood mapping

The property is subject to State Environmental Planning Policy (Sydney Region Growth Centres) 2006. It is identified on the Development Control Map as 'Flood Prone and Major Creeks Land'.

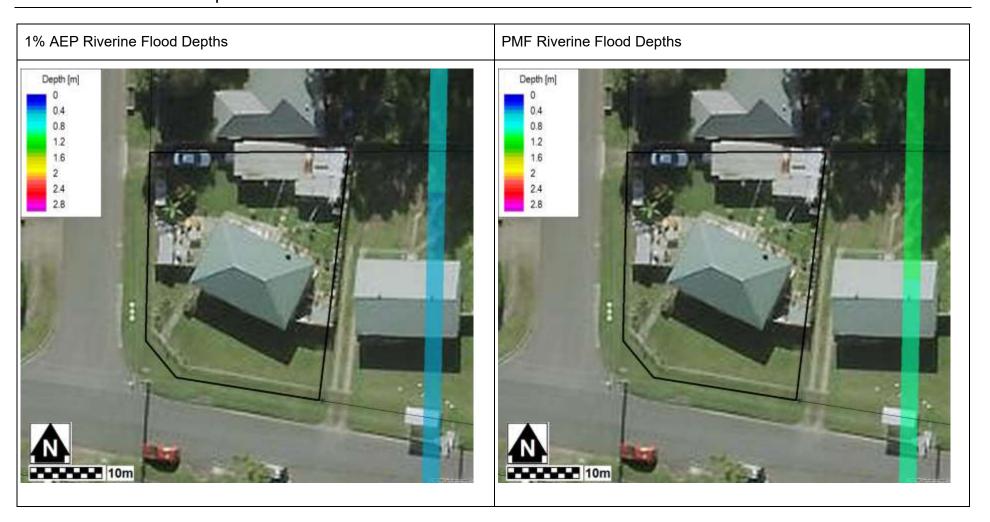
Clause 19 of the Growth Centres SEPP provides heads of consideration when a development application is lodged on land affected by 'Flood Prone and Major Creeks Land'.

The SEPP maps (shown as light blue hatching) indicate the extent of flood prone land based on existing conditions at the time of preparing the precinct planning. Therefore, they may not include any changes resulting from subsequent development or infrastructure works.



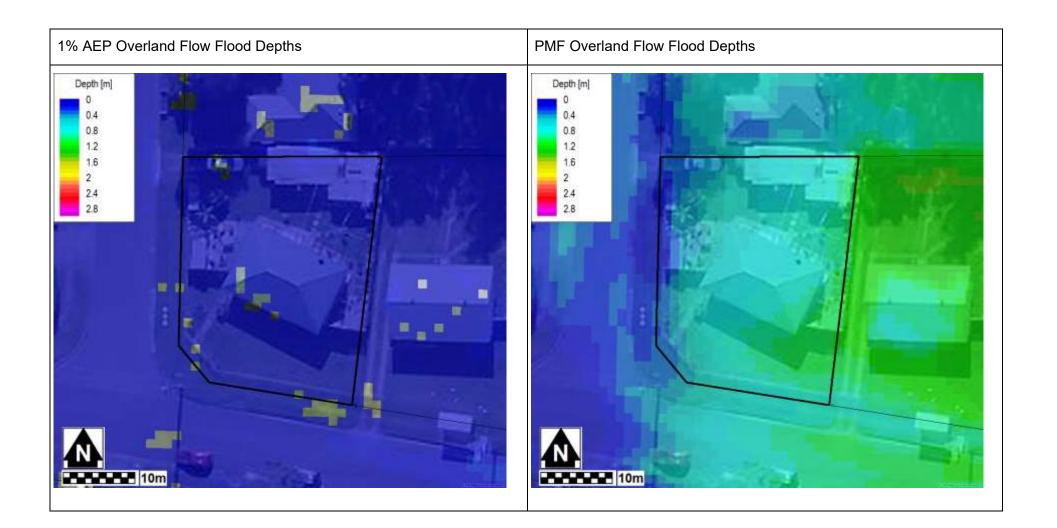


Attachment 4: Flood maps

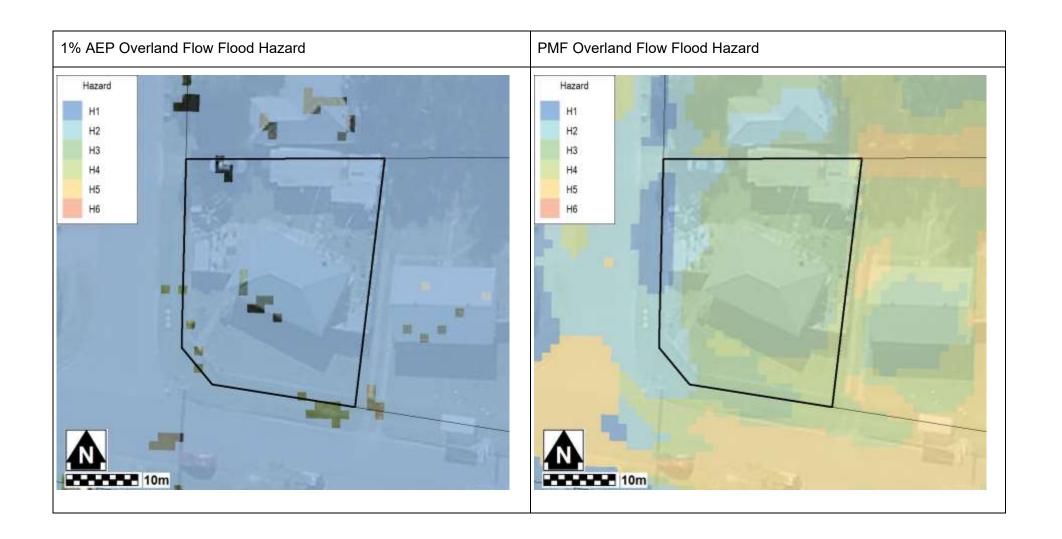




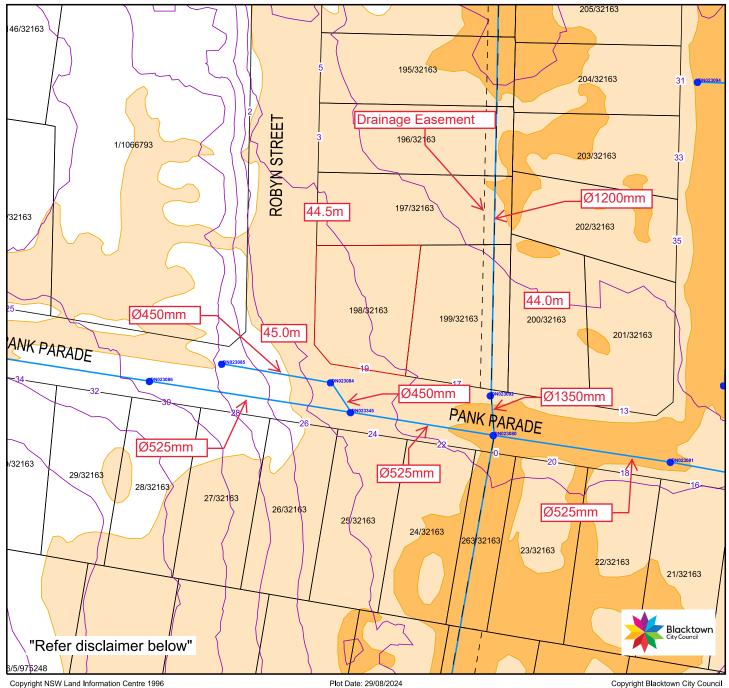












Plot Date: 29/08/2024

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BLACKTOWN CITY COUNCIL Flood Risk Map

DISCLAIMER: The flood risk precincts shown are based on information available to Council and should be regarded as an indicative guide only. A more accurate indication of the extent of the respective flood risk precincts can be determined by relating surveyed ground levels at Australian Height Datum (AHD) to the hydraulic and/or flood level criteria determining flood risk precinct boundaries. This information may be obtained by a written request to Council accompanied by a ground level survey to AHD prepared by a Registered Surveyor. Should flood risk precinct extents be required for the purpose of a financial transaction of any nature, then the parties to that transaction should apply to Council for formal certification and/or seek independent legal or professional advice.



Parcel Extent. Torrens Title Extent Drainage Node.Location Connected DTM Contour.45.0m Contour Parcel LPI Extent. Torrens Title Extent Flood Extents.Medium Flood Risk Precinct DTM Contour.45.5m Contour Easement Segment.Extent Flood Extents.Low Flood Risk Precinct DTM Contour 46.0m Contour Local Overland Flood 2024 Display. Area Low DTM Contour.46.5m Contour Local Government Area.Gazetted Boundary Local Overland Flood 2024 Display.Area Medium Creek.Route DTM Contour.47.0m Contour Ш Railway.Centreline DTM Contour 43.5m Contour DTM Contour.47.5m Contour DTM Contour.48.0m Contour Drainage Conduit.Route DTM Contour.44.0m Contour Drainage Node.Location DTM Contour.44.5m Contour

Plotted by: swadmin a4 bcic flood portait external.xml