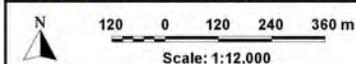
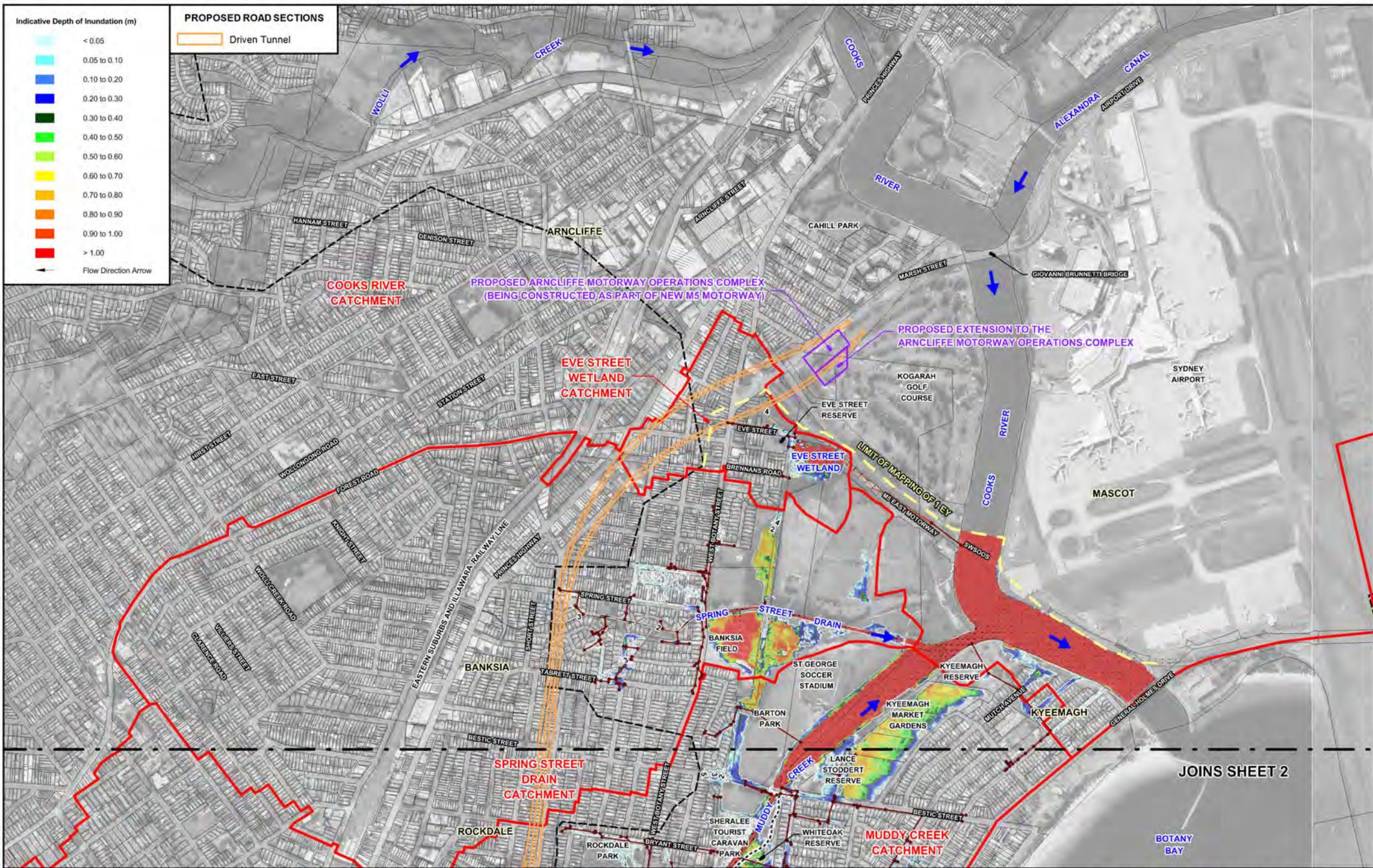


Annexure C Additional figures showing flood modelling results



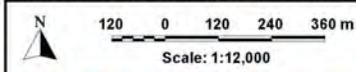
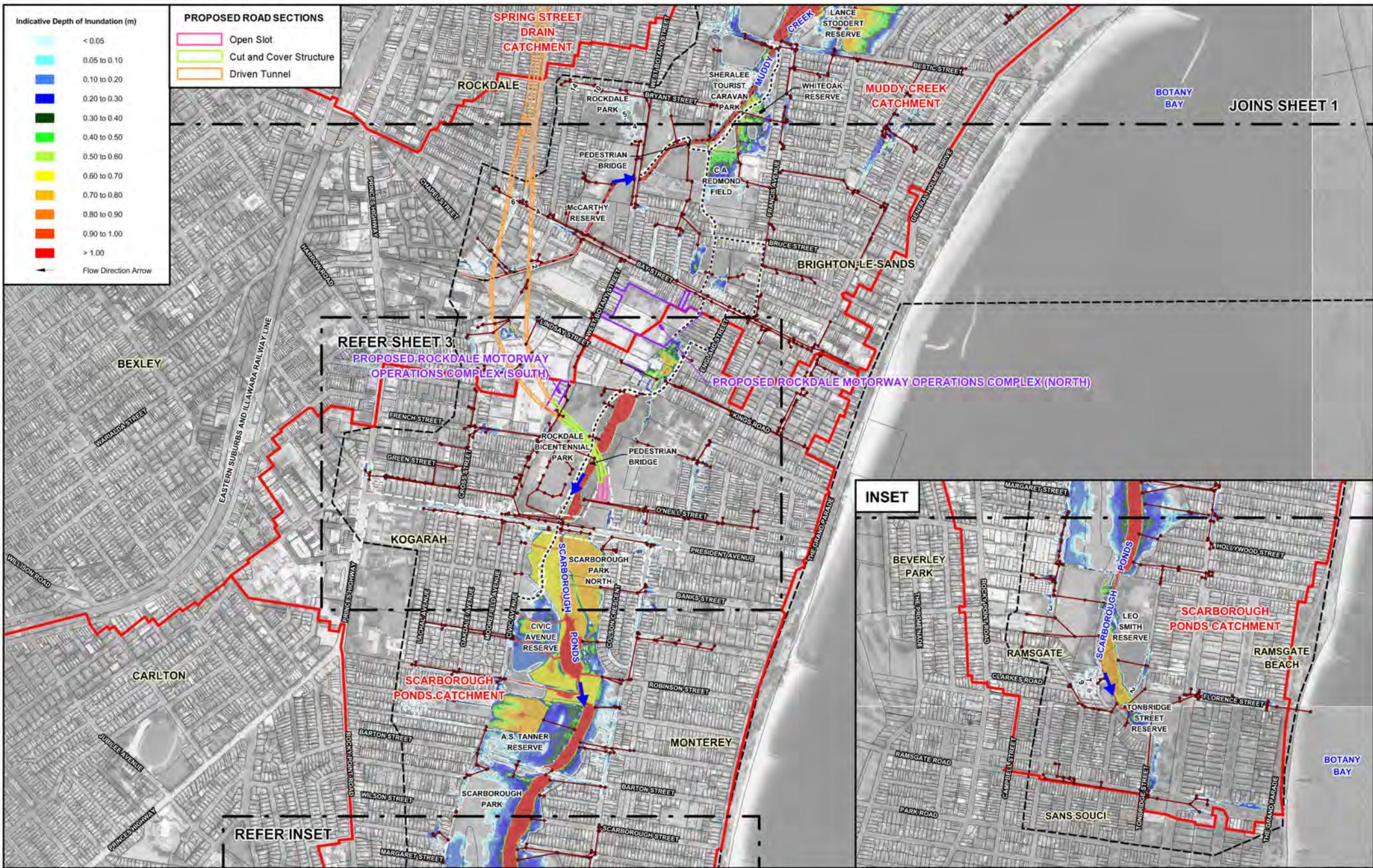
Note:
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 Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

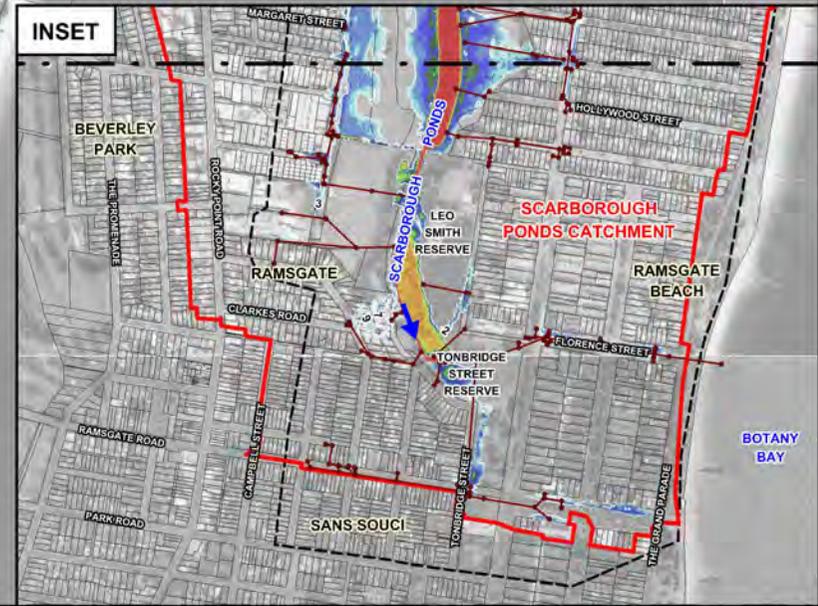
Figure C-1
 Sheet 1 of 3

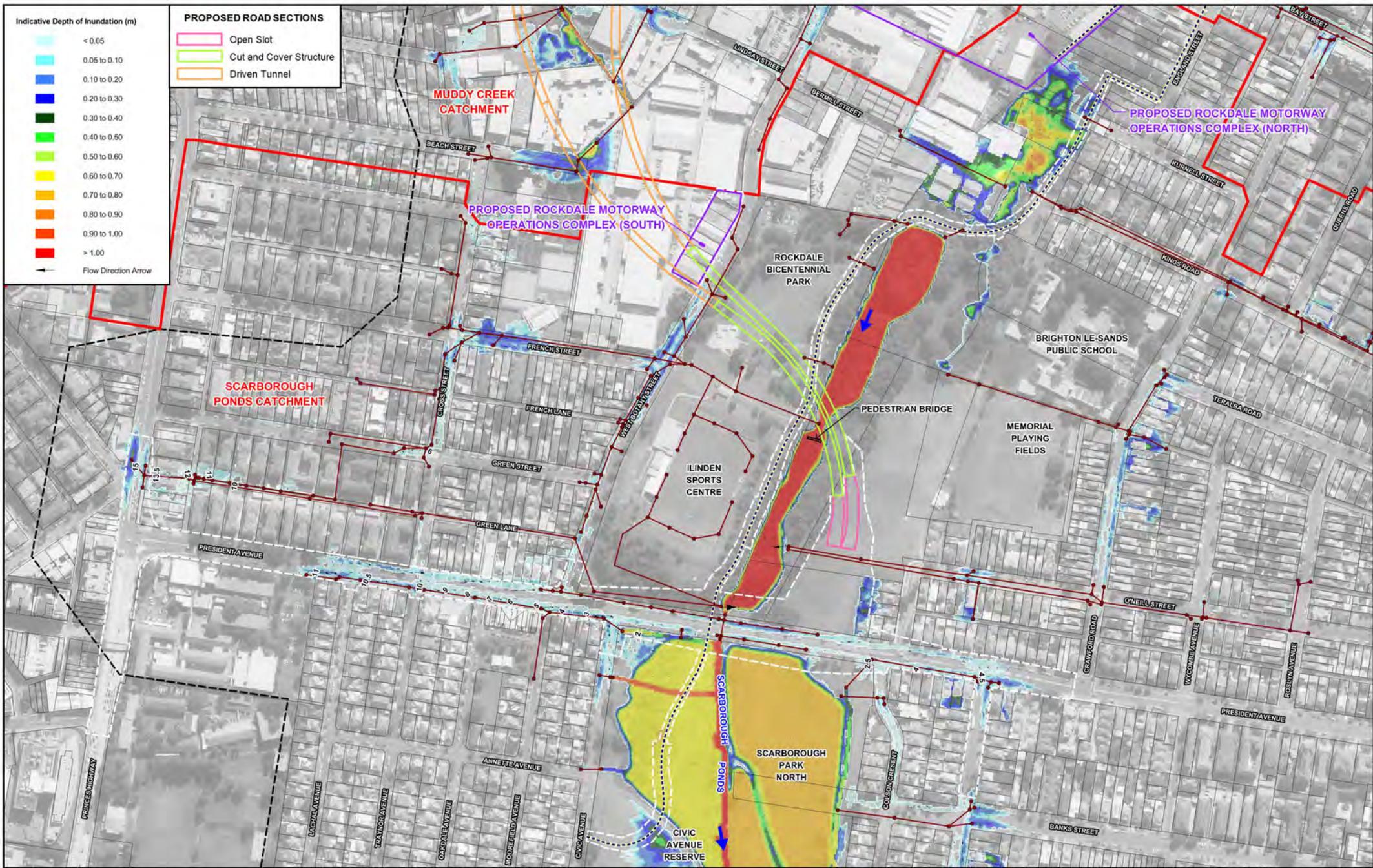
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 1 EY



Note:
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- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary





Scale: 1:4,000

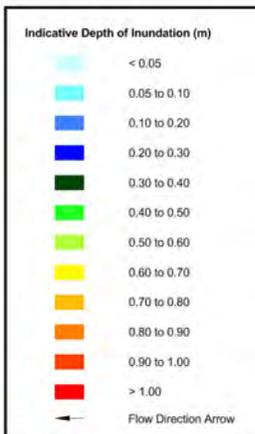
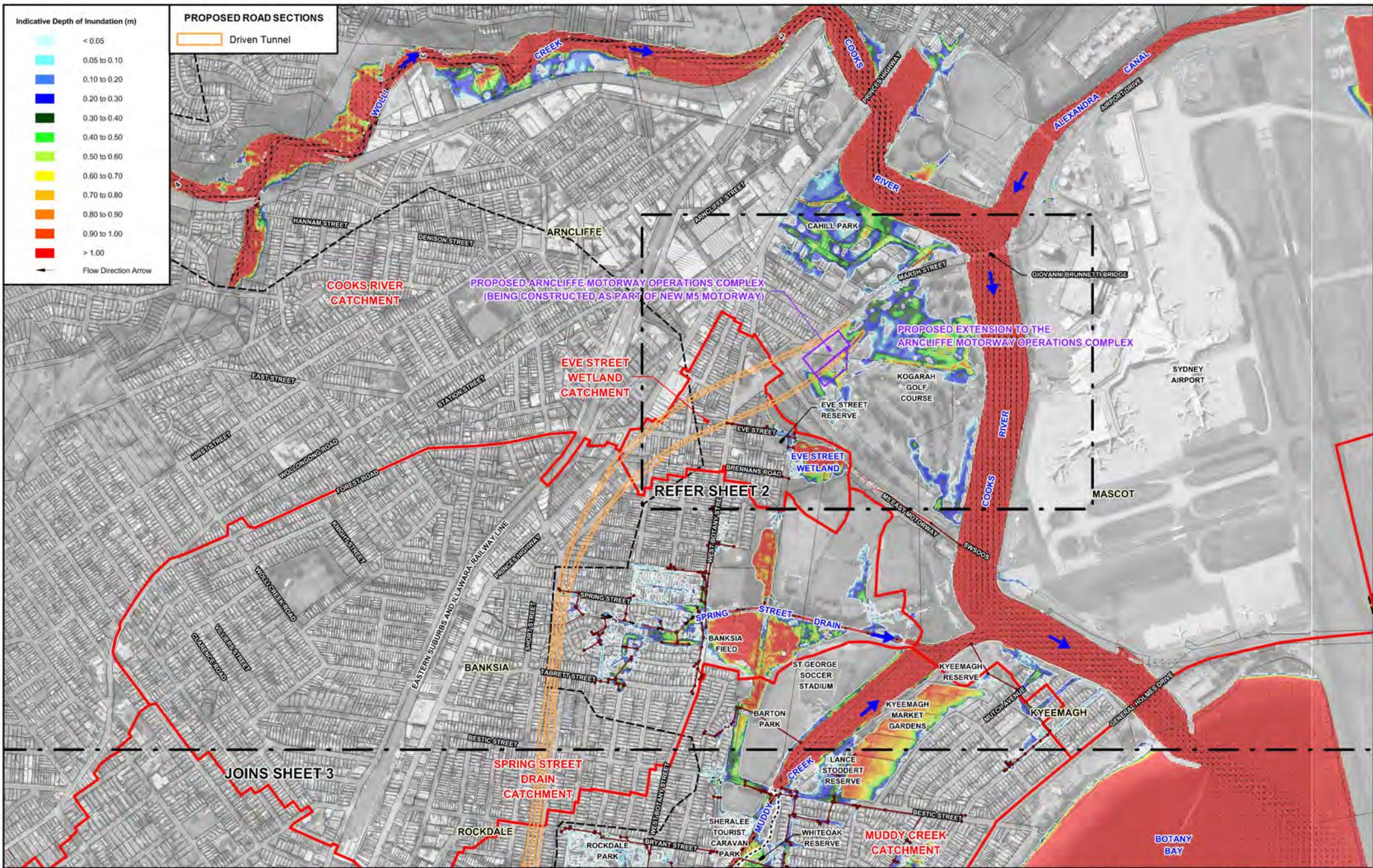
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Existing Drainage System
 - Project Boundary of Proposed Surface Works
 - Two-Dimensional Model Boundary
 - Extent of Proposed Tunnel Ancillary Facilities
 - Catchment Boundary
 - Water Surface Elevation Contours (m AHD)

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

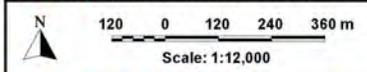
Figure C-1
 Sheet 3 of 3

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 1 EY**



PROPOSED ROAD SECTIONS

Driven Tunnel



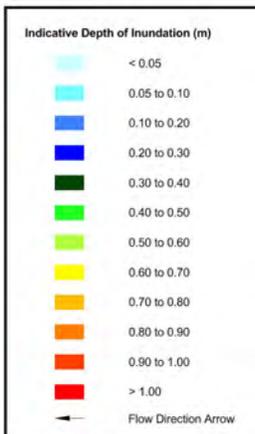
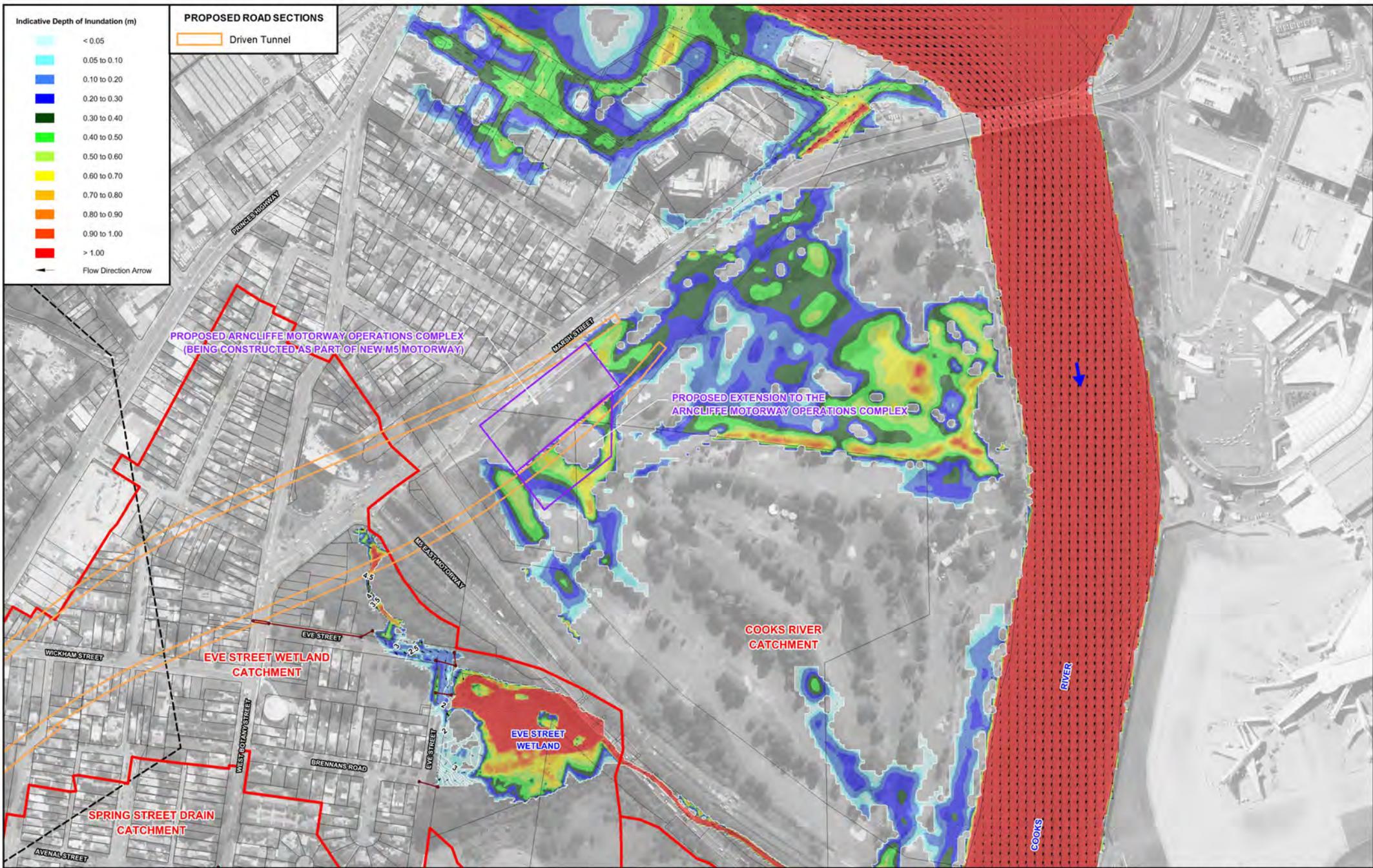
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

Lyall & Associates

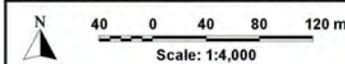
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-2
 Sheet 1 of 4
 PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 20% AEP



PROPOSED ROAD SECTIONS

Driven Tunnel



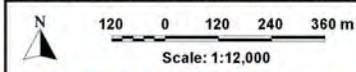
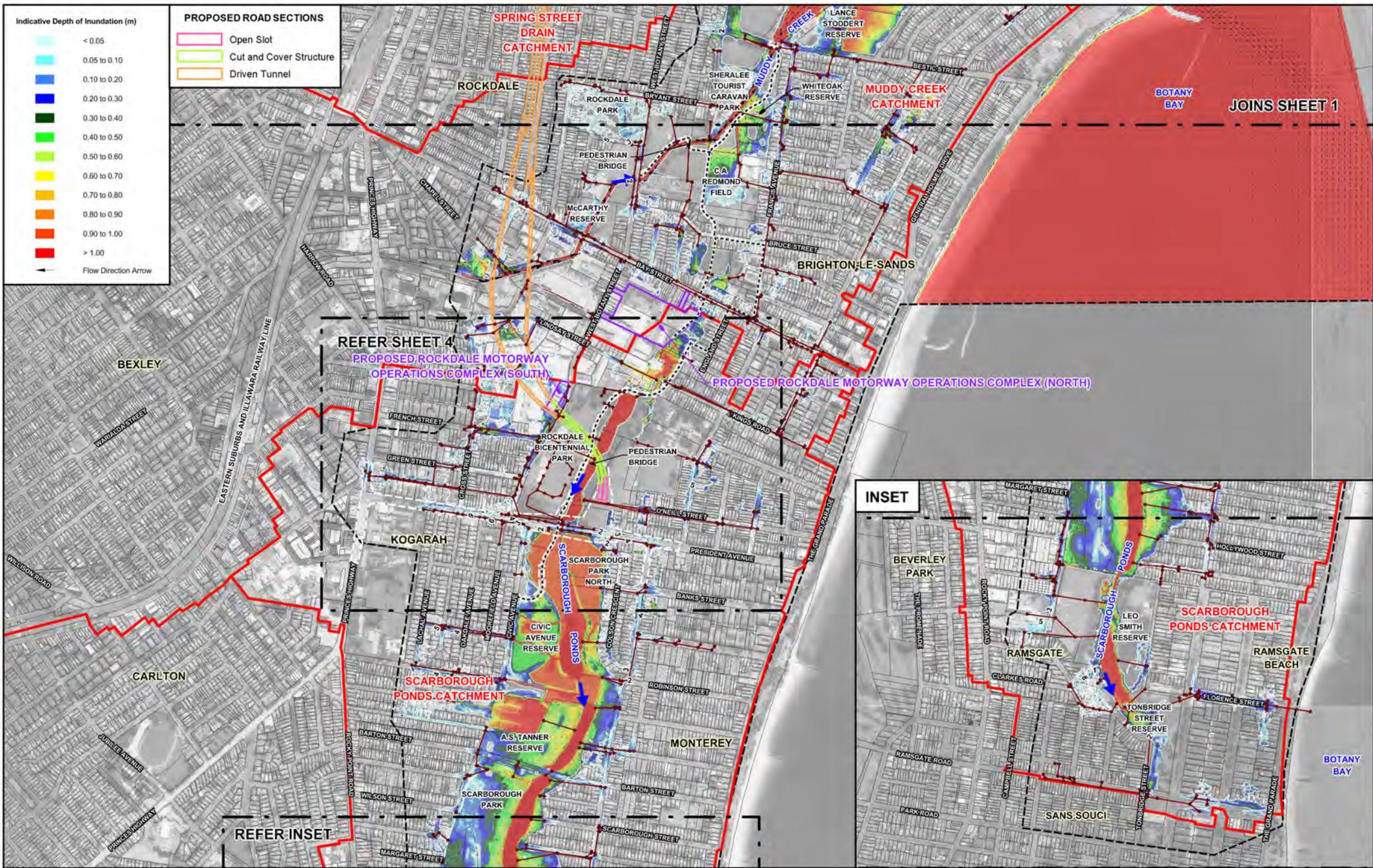
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-2
 Sheet 2 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 20% AEP



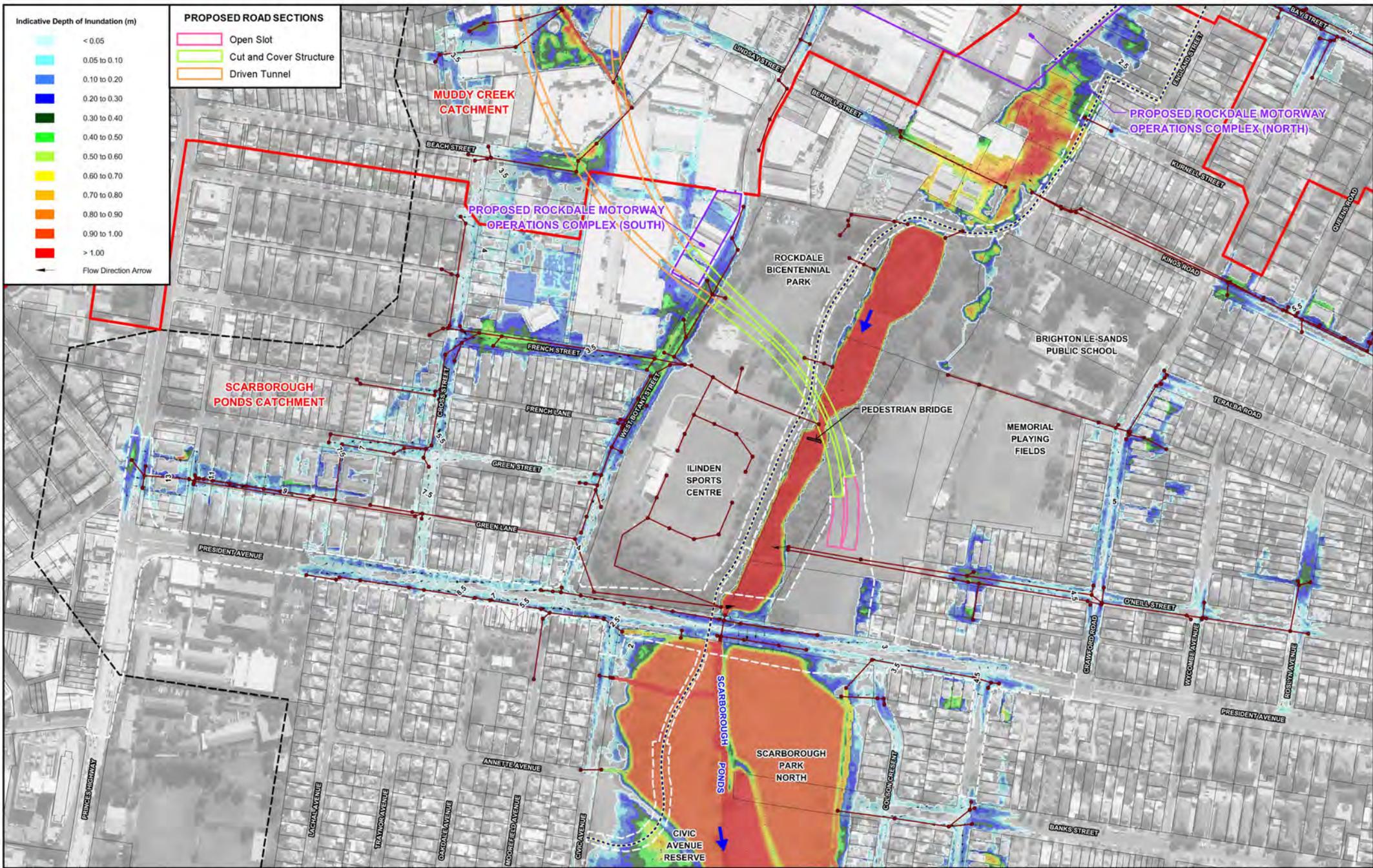
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Existing Drainage System
 - Project Boundary of Proposed Surface Works
 - Two-Dimensional Model Boundary
 - Extent of Proposed Tunnel Ancillary Facilities
 - Catchment Boundary
 - Water Surface Elevation Contours (m AHD)

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-2
 Sheet 3 of 4

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 20% AEP**



Scale: 1:4,000

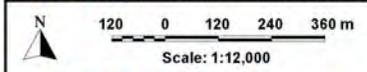
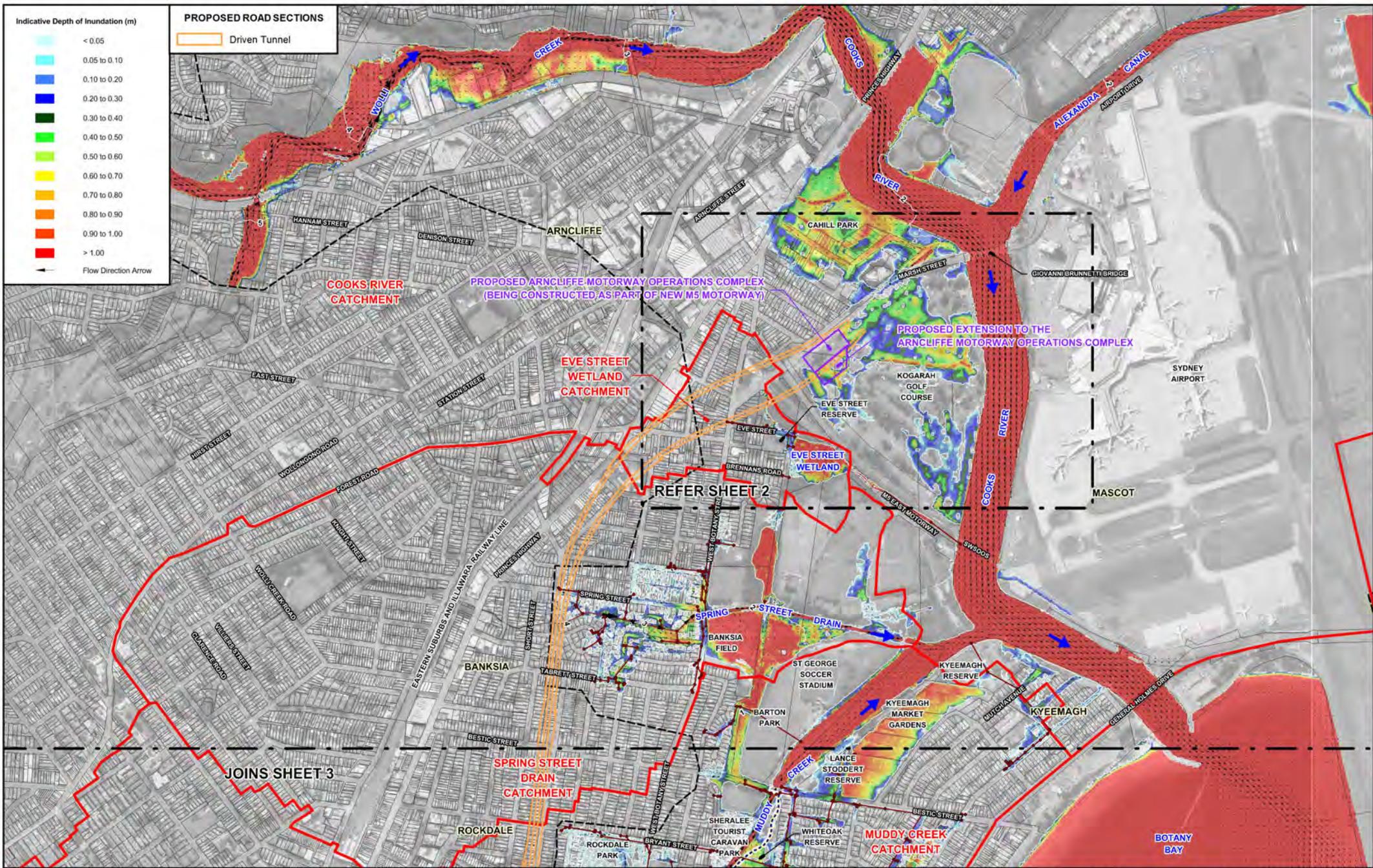
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-2
 Sheet 4 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 20% AEP



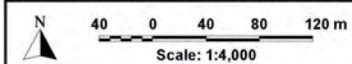
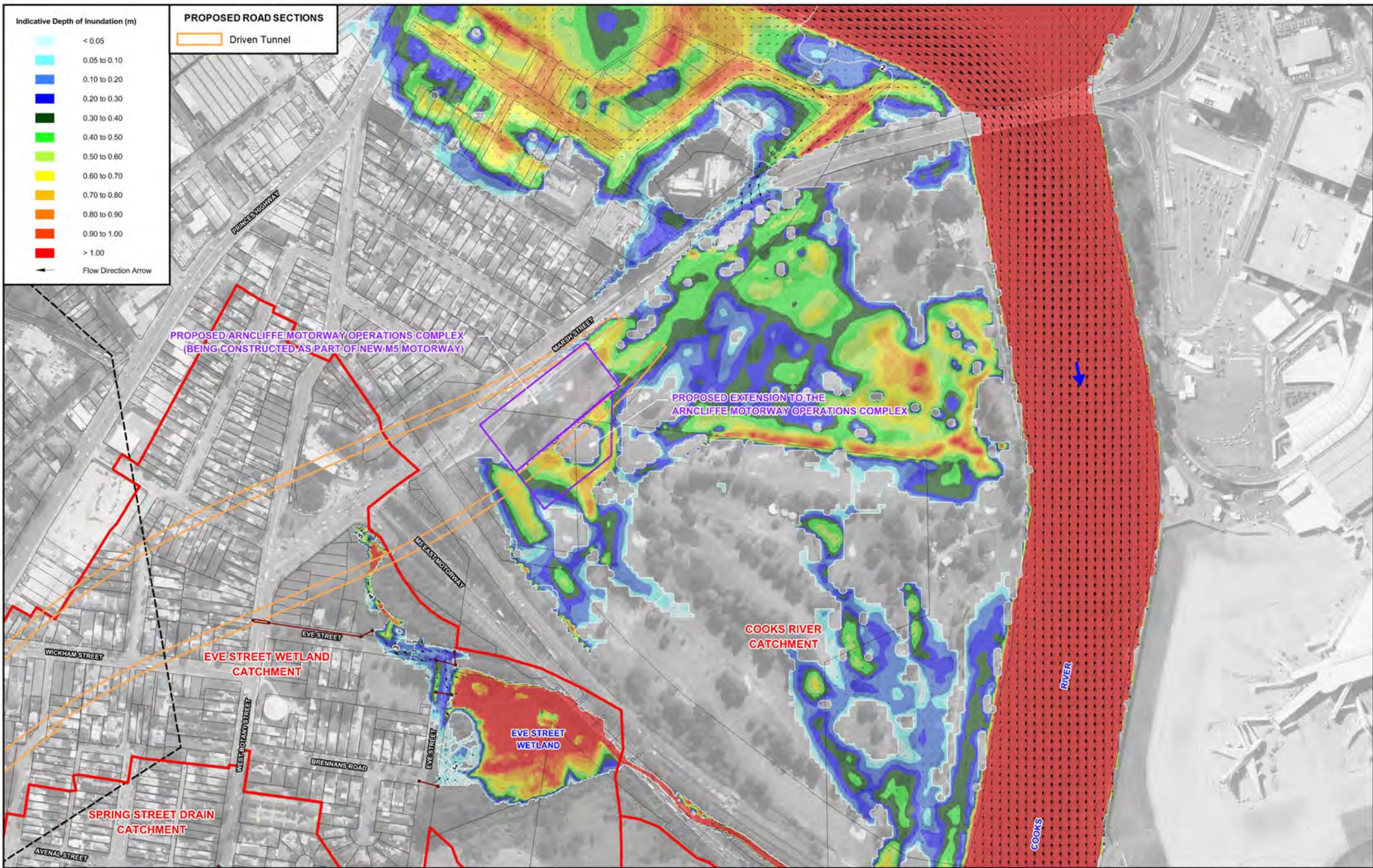
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-3
 Sheet 1 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 5% AEP



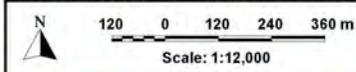
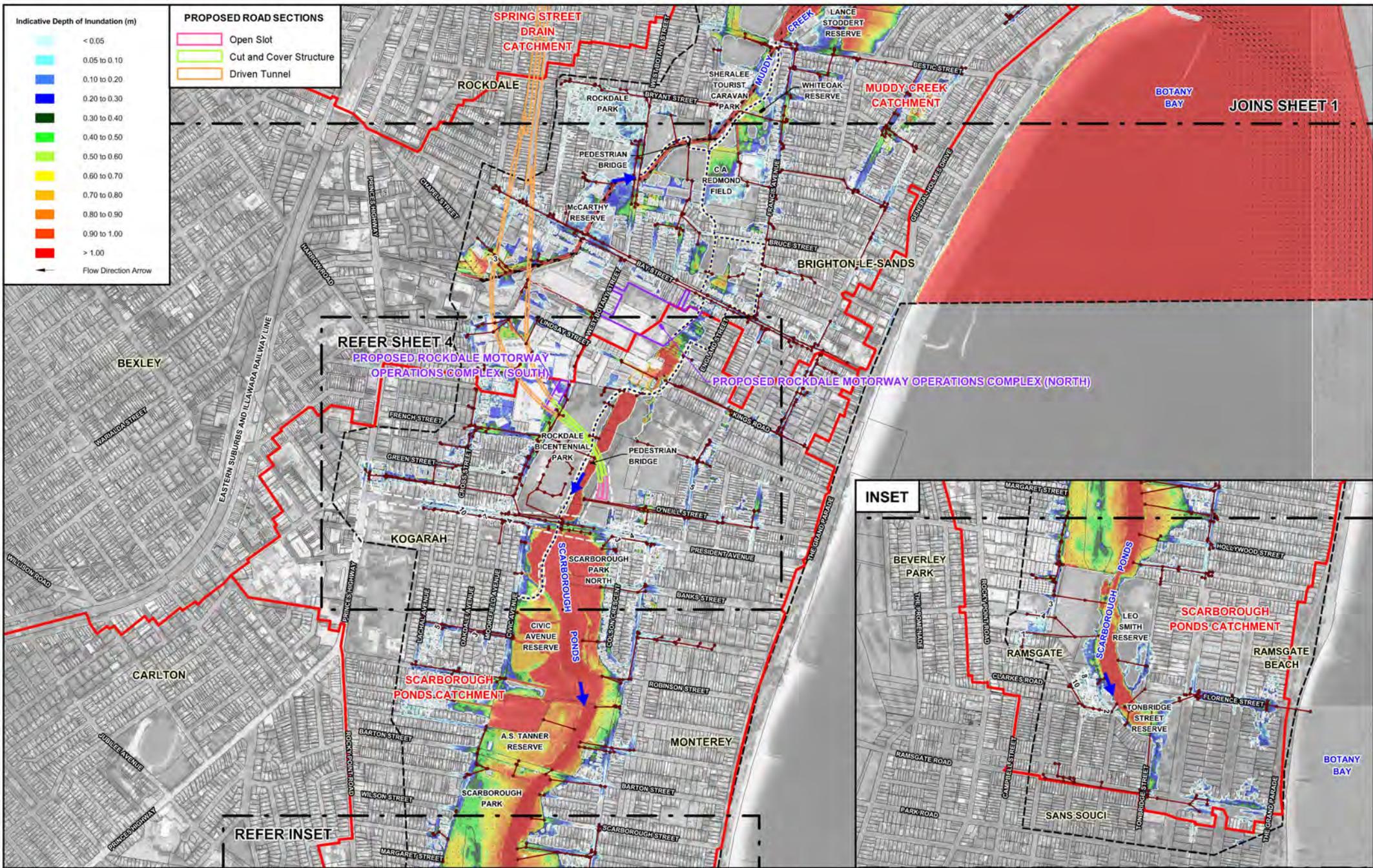
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-3
 Sheet 2 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 5% AEP



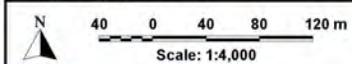
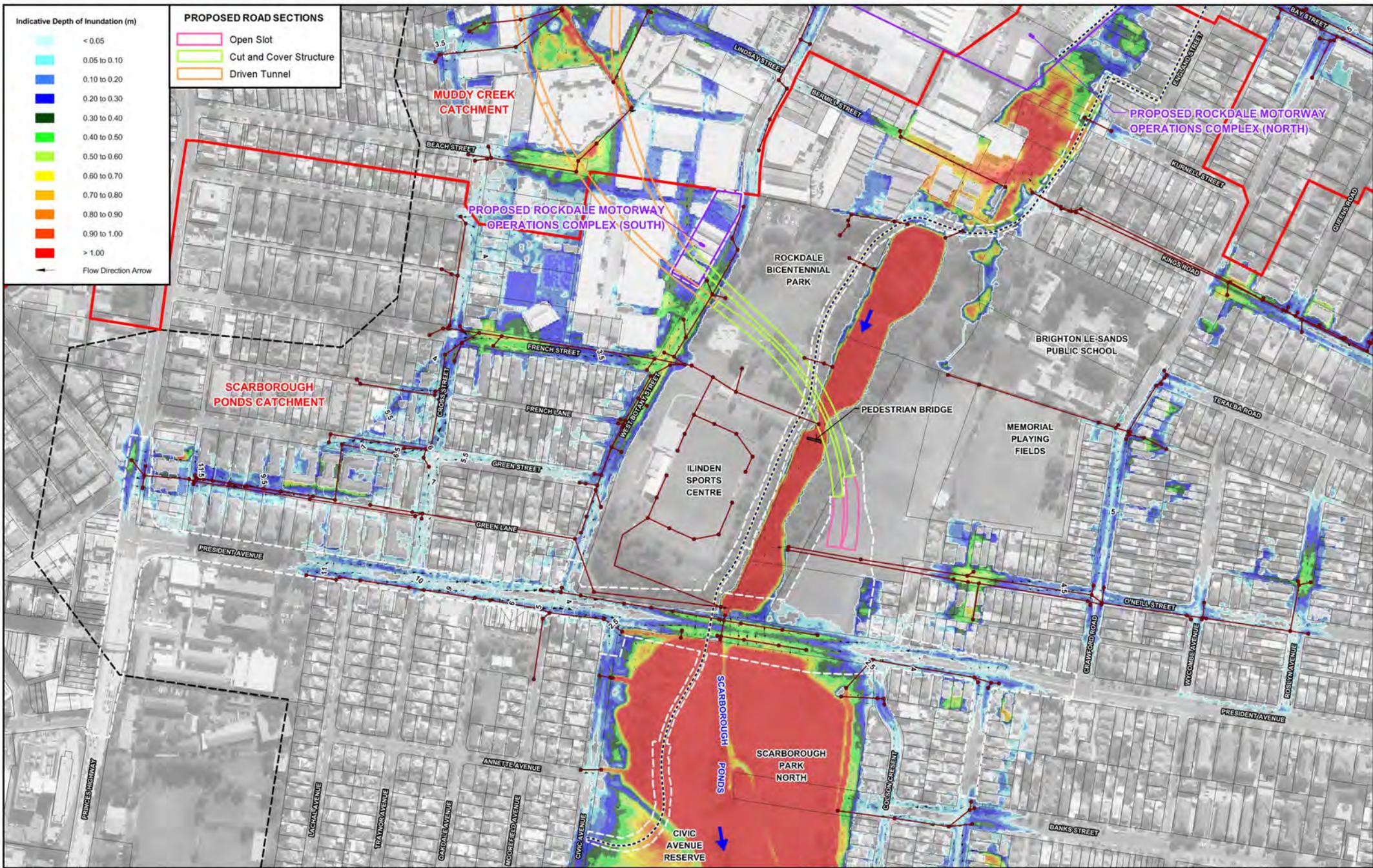
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Existing Drainage System
 - Project Boundary of Proposed Surface Works
 - Two-Dimensional Model Boundary
 - Extent of Proposed Tunnel Ancillary Facilities
 - Catchment Boundary
 - Water Surface Elevation Contours (m AHD)

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

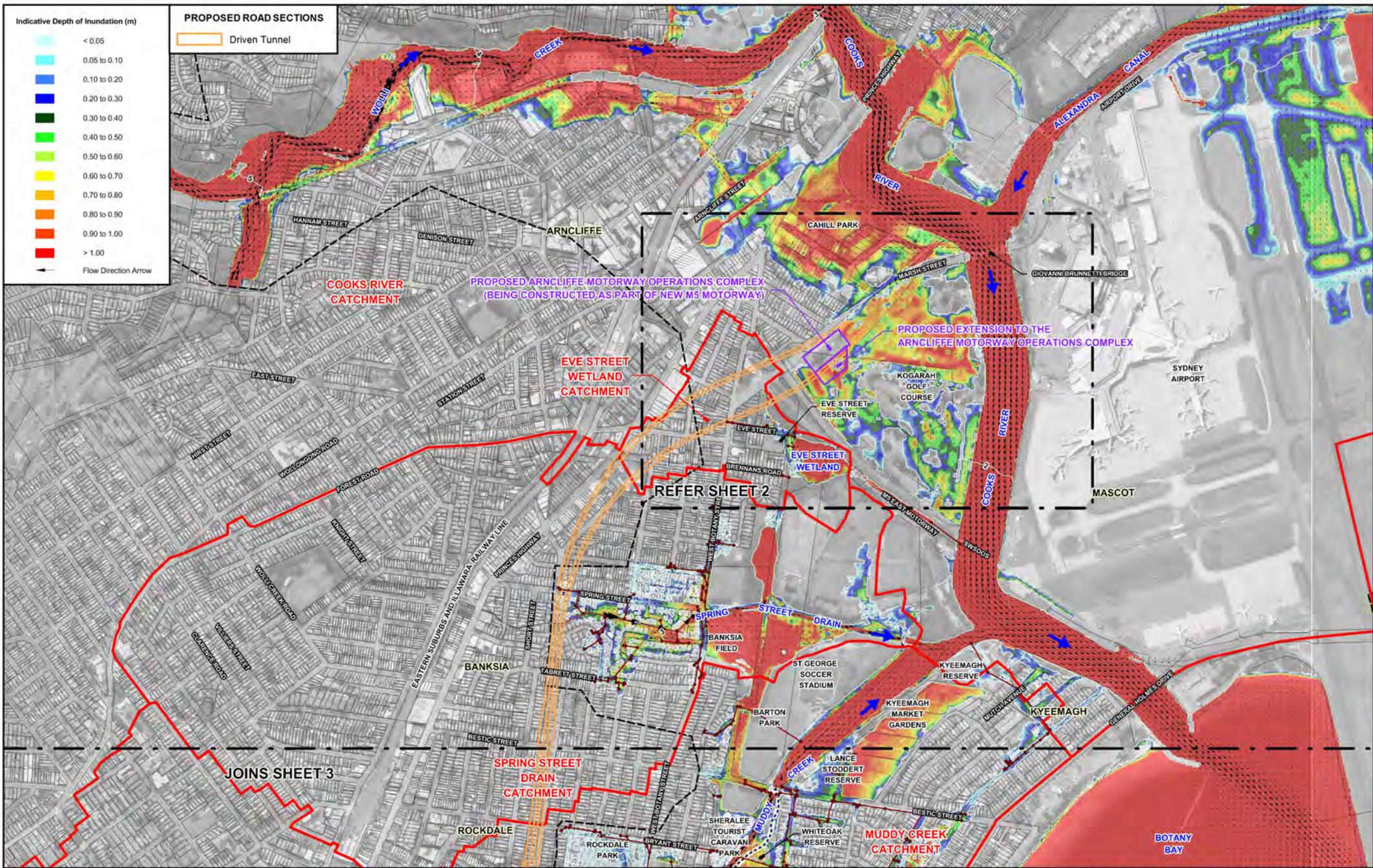
Figure C-3
 Sheet 3 of 4

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 5% AEP**



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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary



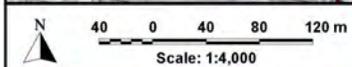
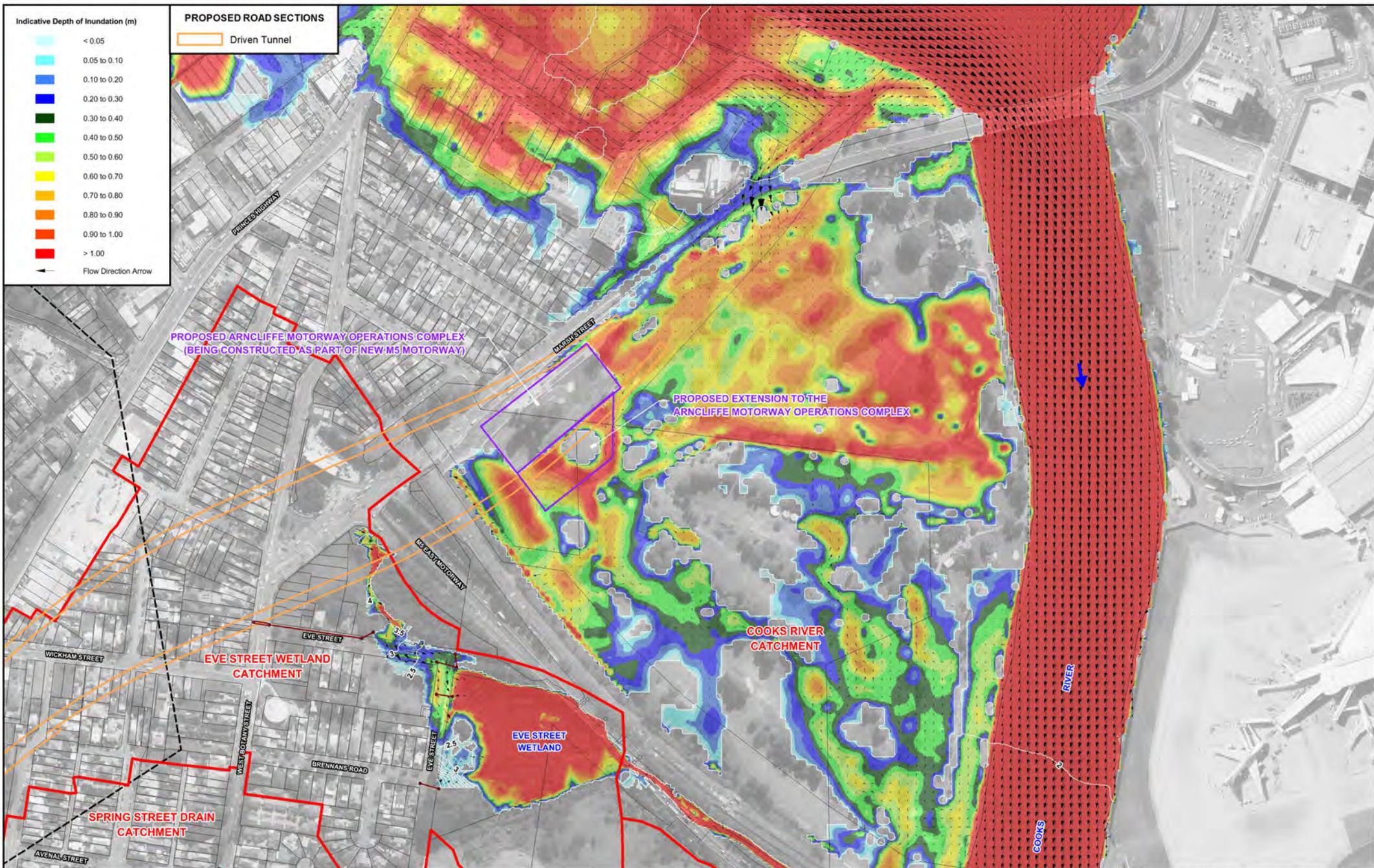
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 Scale: 1:12,000
Lyall & Associates

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LEGEND

- - - - - Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Water Surface Elevation Contours (m AHD)
- - - - - Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary

F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT
 Figure C-4
 Sheet 1 of 4
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 0.5% AEP



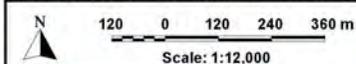
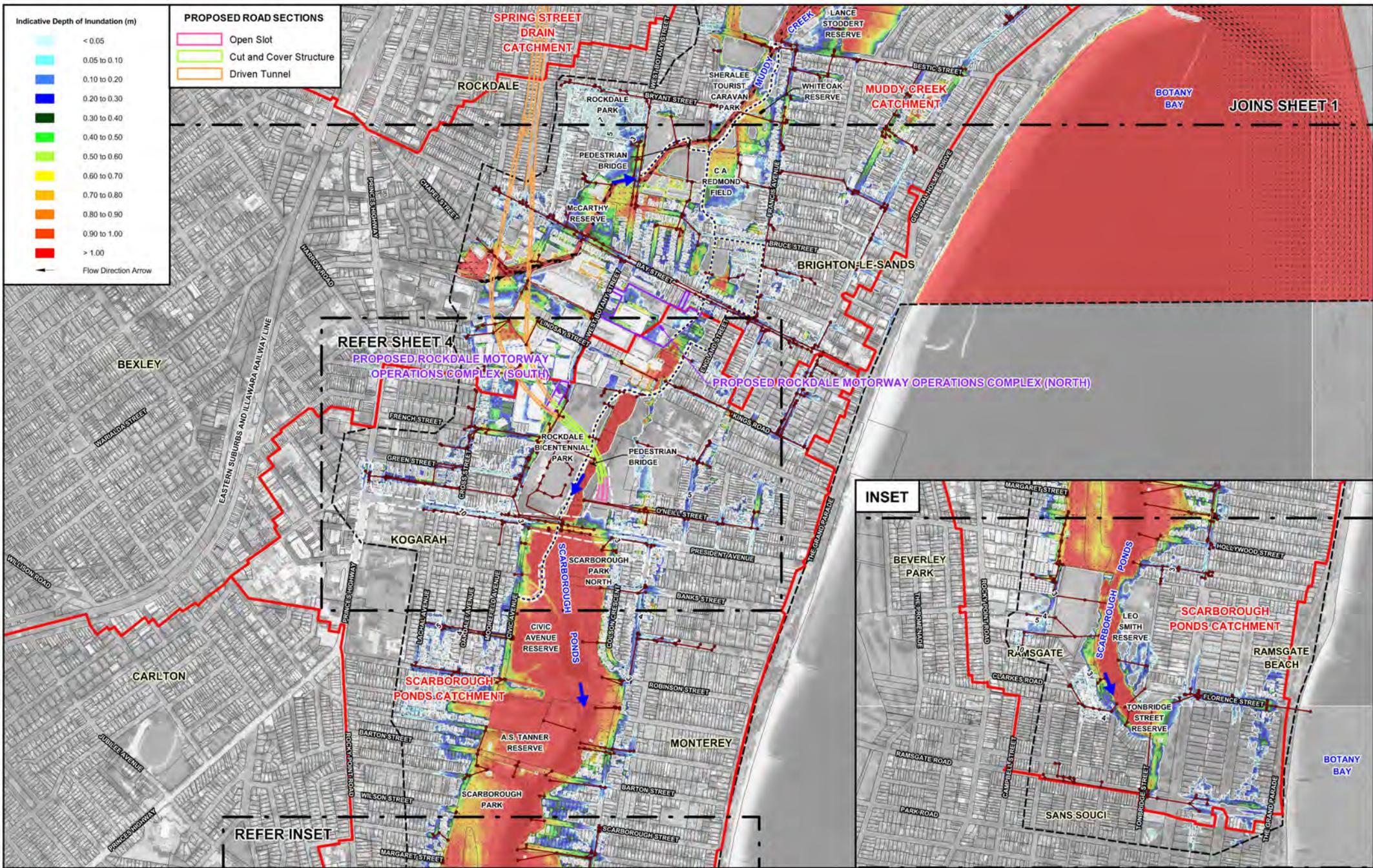
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-4
 Sheet 2 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 0.5% AEP



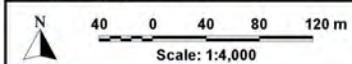
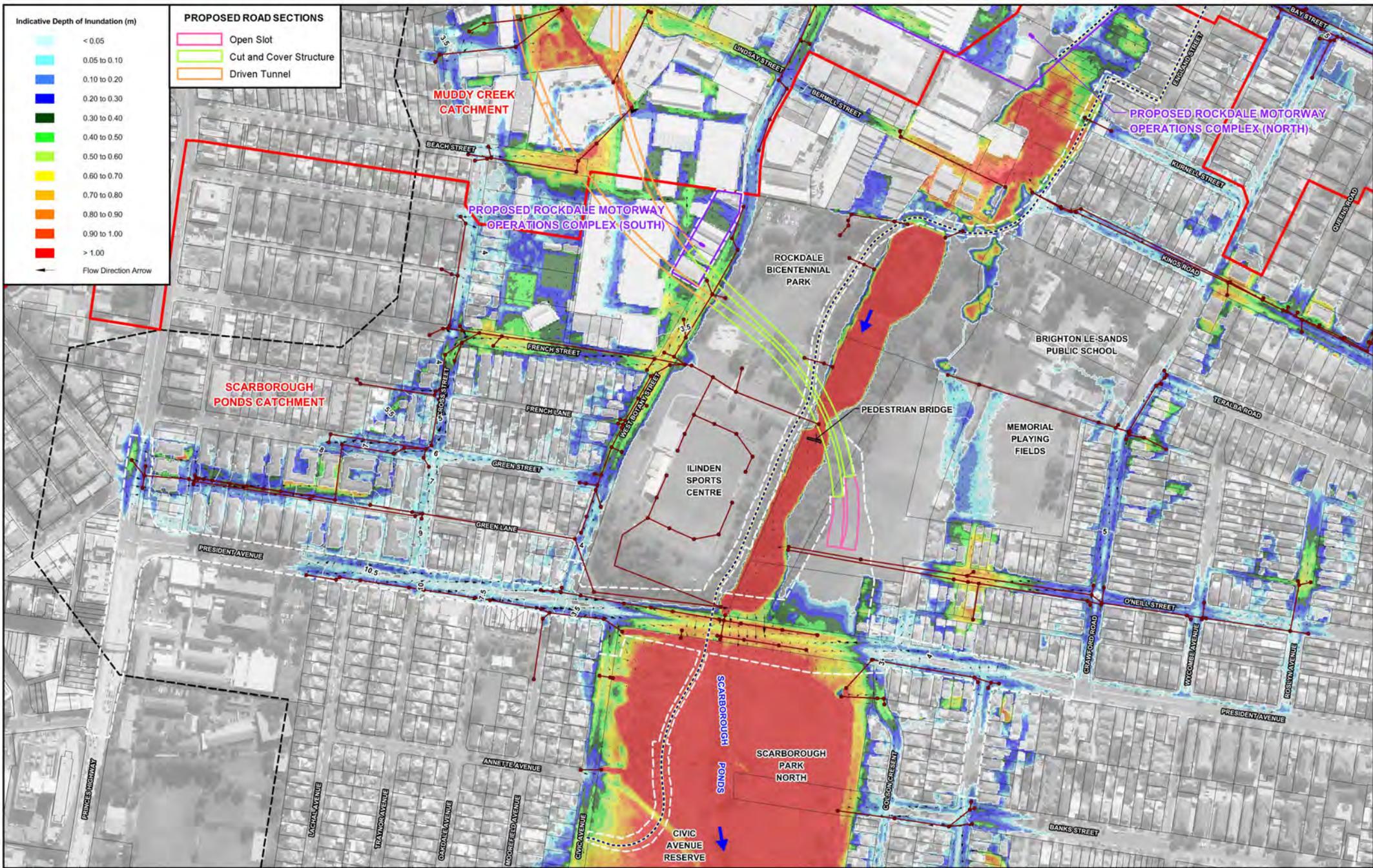
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-4
 Sheet 3 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 0.5% AEP



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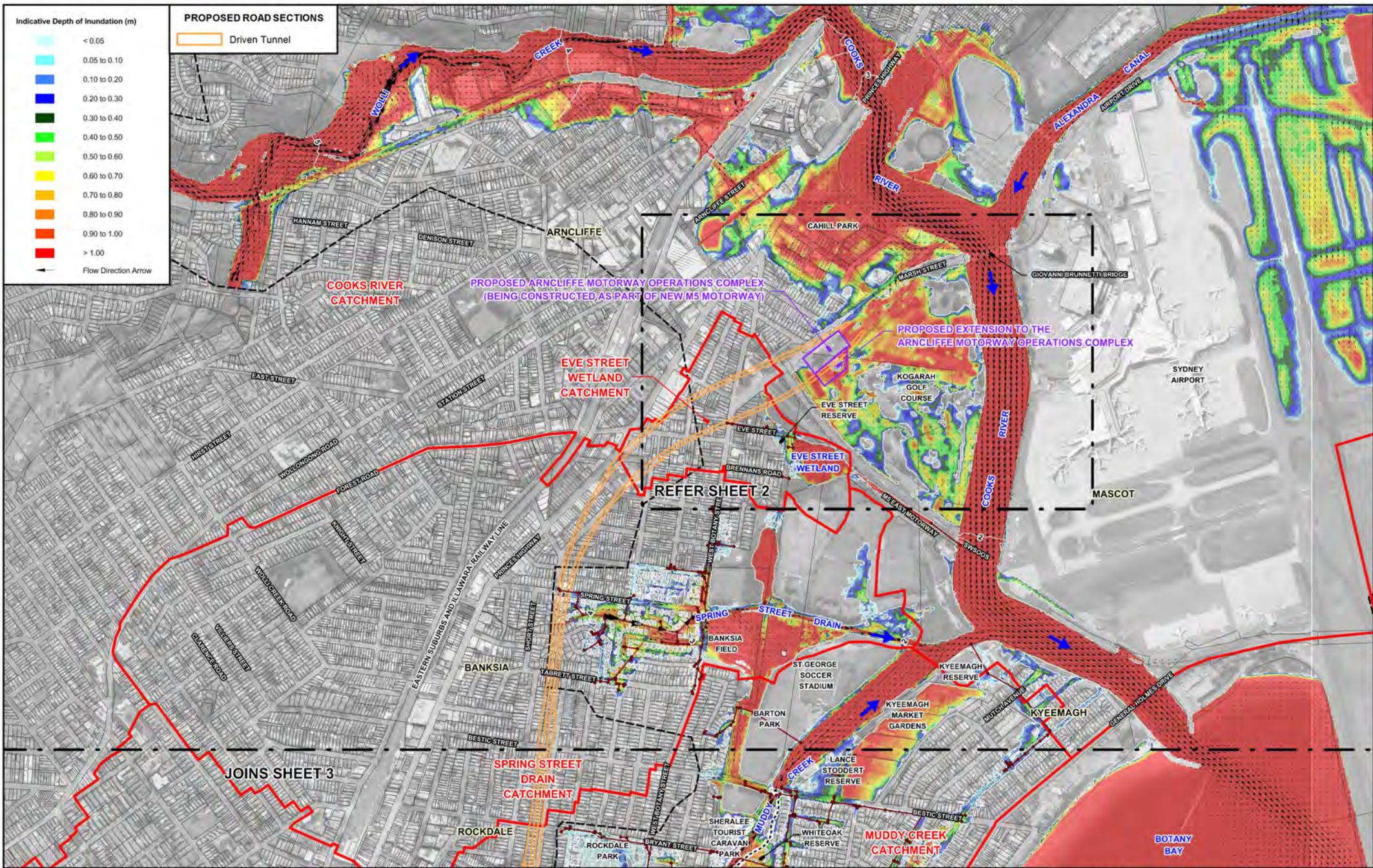
LEGEND

- Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Water Surface Elevation Contours (m AHD)
- Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-4
 Sheet 4 of 4

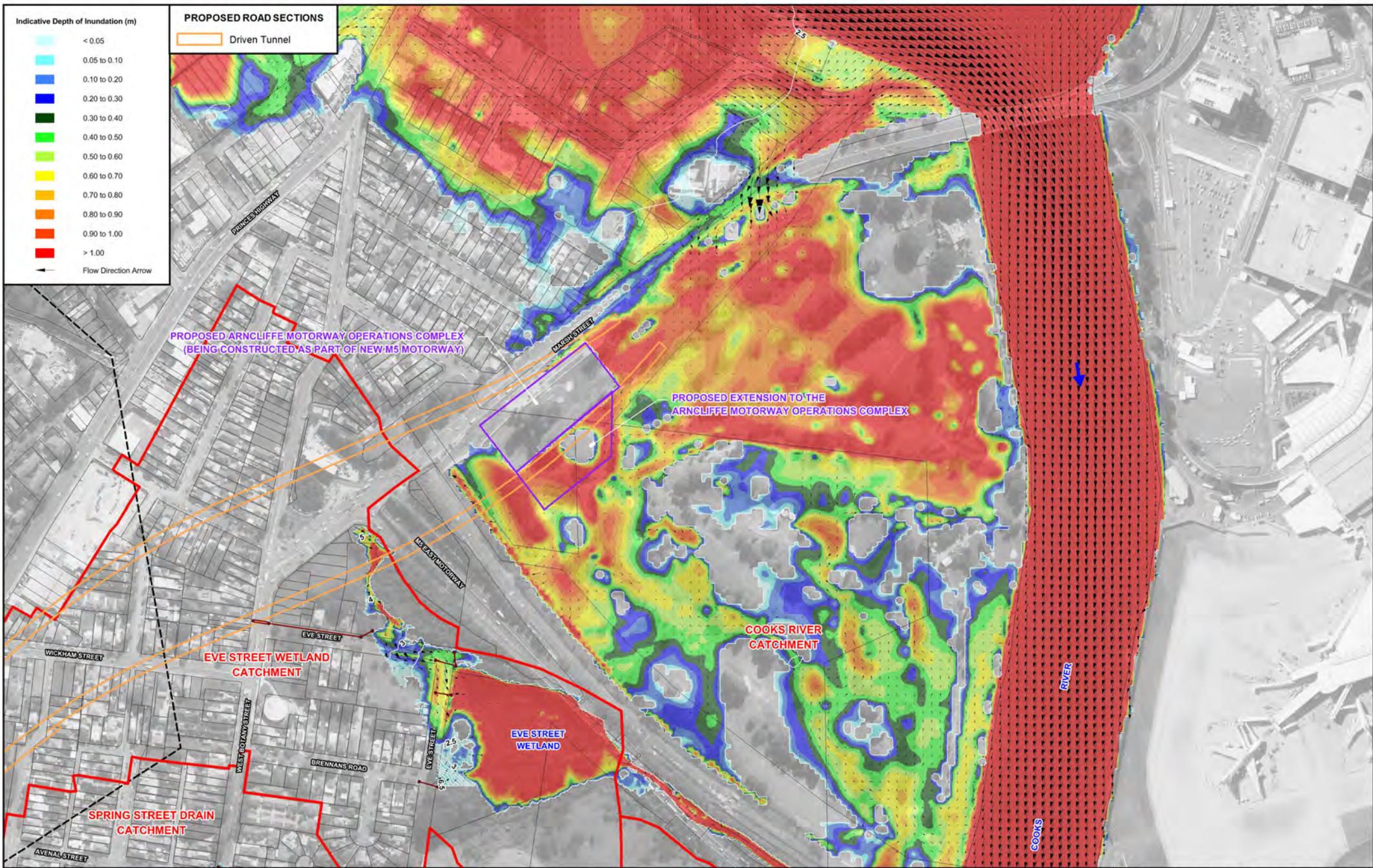
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 0.5% AEP



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LEGEND

-  Proposed Cycle and Pedestrian Pathways
-  Project Boundary of Proposed Surface Works
-  Extent of Proposed Tunnel Ancillary Facilities
-  Water Surface Elevation Contours (m AHD)
-  Existing Drainage System
-  Two-Dimensional Model Boundary
-  Catchment Boundary



Scale: 1:4,000

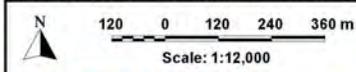
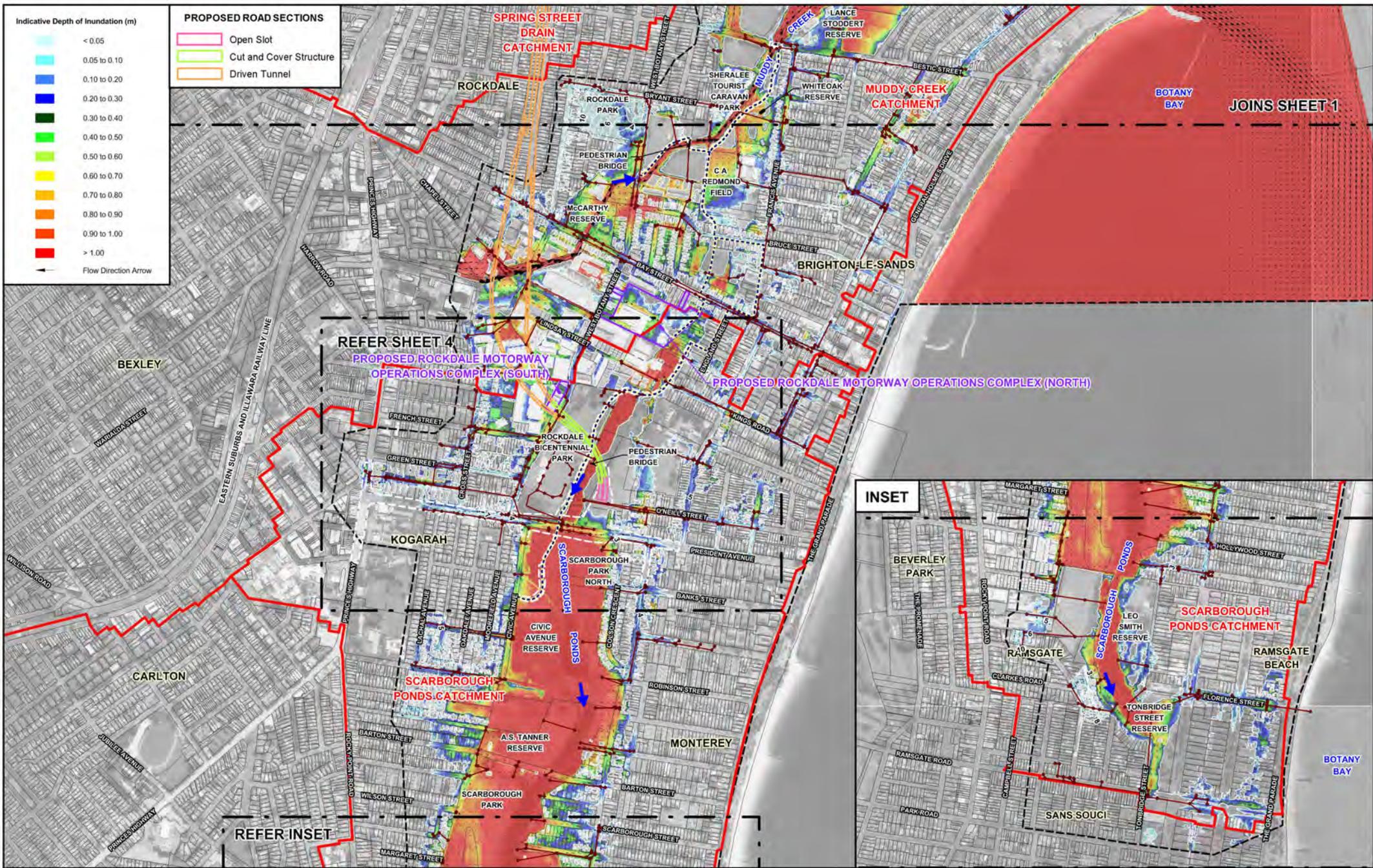
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Water Surface Elevation Contours (m AHD)
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

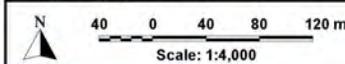
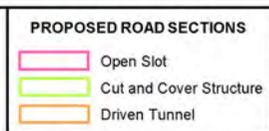
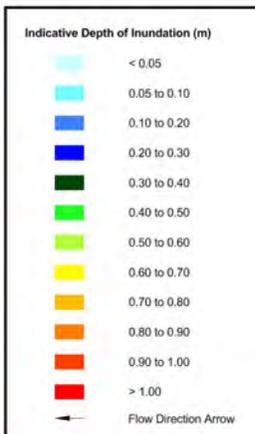
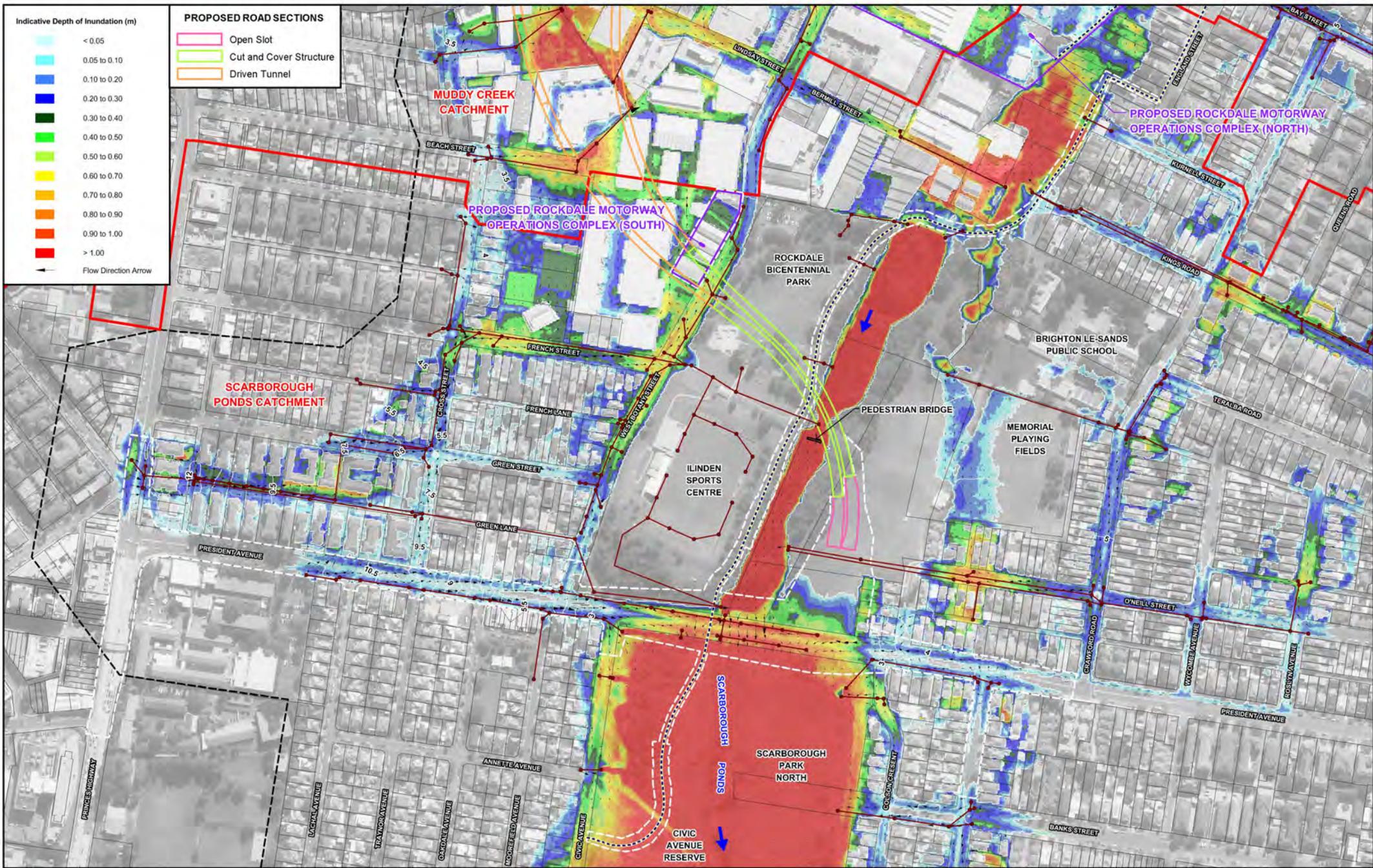
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-5
 Sheet 2 of 4

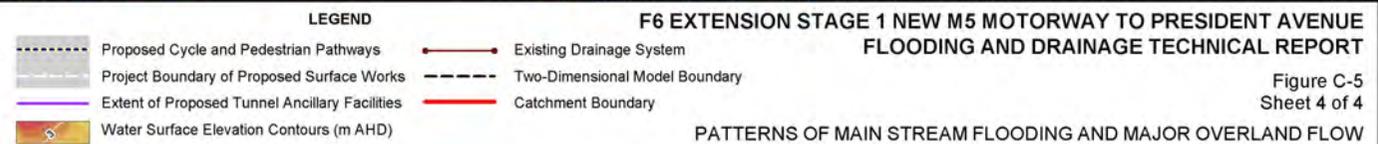
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 PRESENT DAY CONDITIONS - 0.2% AEP

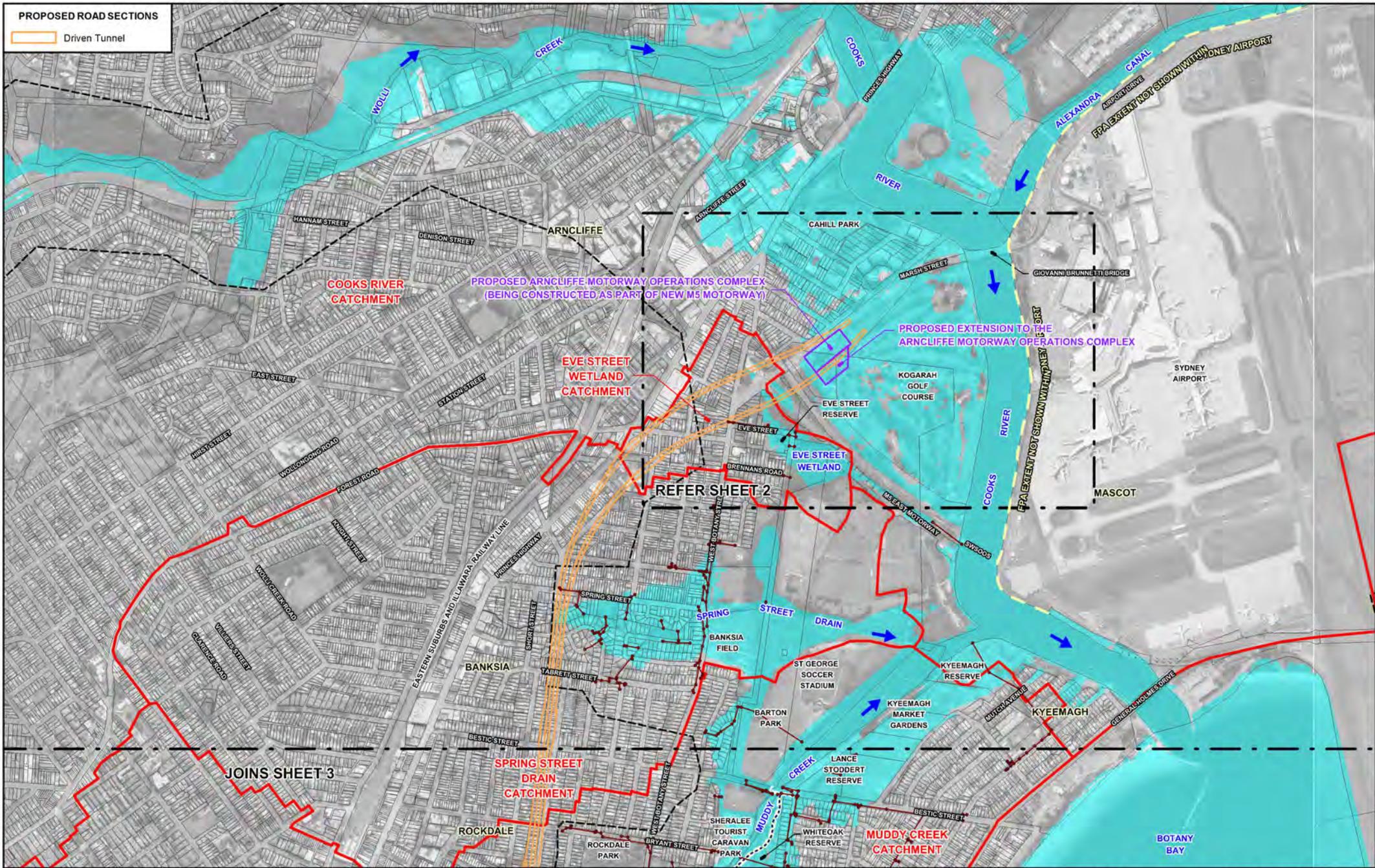


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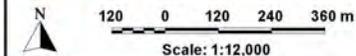


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PROPOSED ROAD SECTIONS
 Driven Tunnel



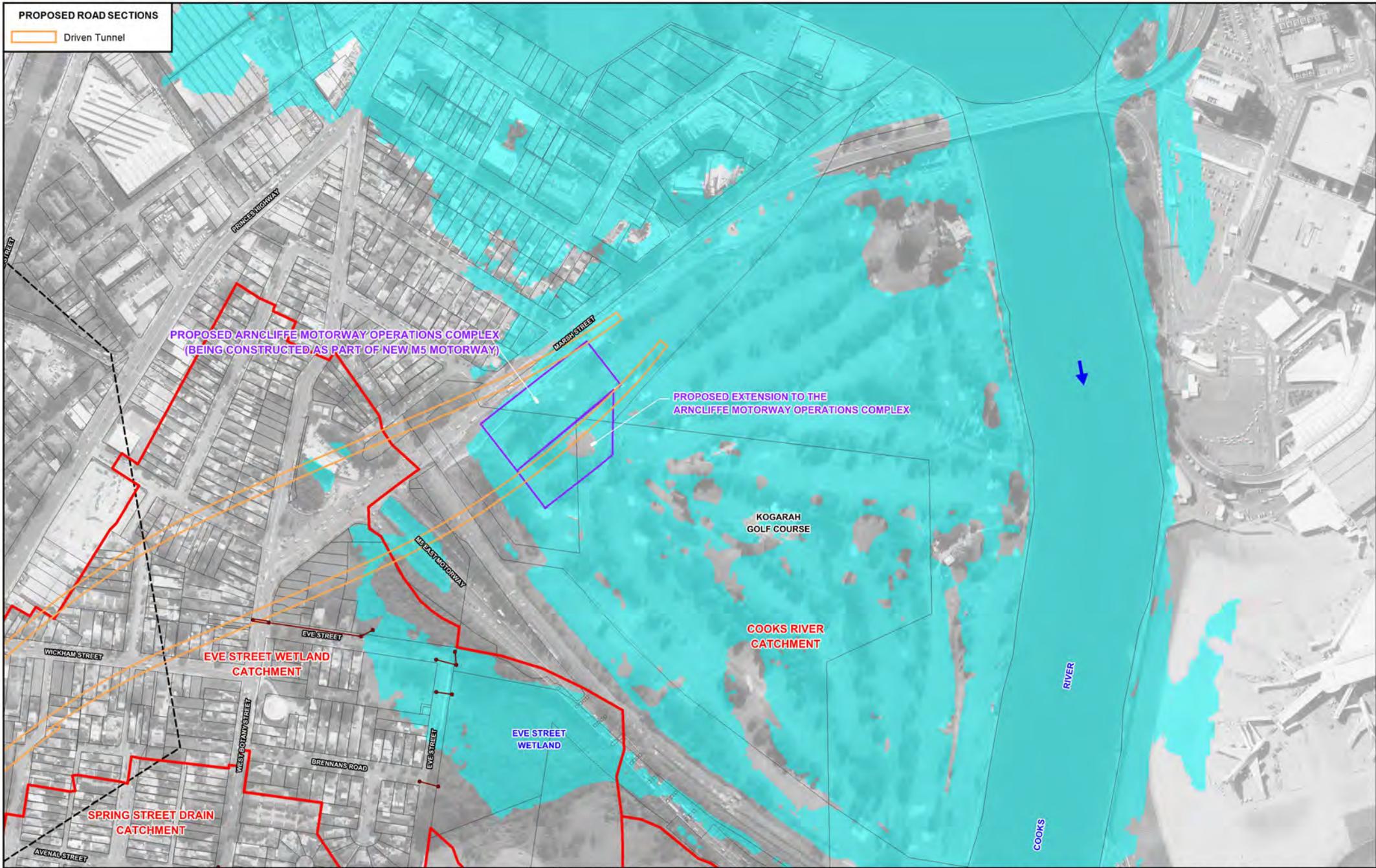
Lyall & Associates

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- LEGEND**
- Proposed Active Transport Corridor
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Flood Planning Area
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-6
 Sheet 1 of 4
 FLOOD PLANNING AREA
 PRESENT DAY CONDITIONS - 1% AEP



PROPOSED ROAD SECTIONS
 Driven Tunnel

PROPOSED ARNLIFFE MOTORWAY OPERATIONS COMPLEX
 (BEING CONSTRUCTED AS PART OF NEW M5 MOTORWAY)

PROPOSED EXTENSION TO THE
 ARNLIFFE MOTORWAY OPERATIONS COMPLEX

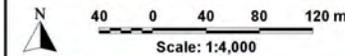
KOGARAH
 GOLF COURSE

COOKS RIVER
 CATCHMENT

EVE STREET
 WETLAND
 CATCHMENT

EVE STREET
 WETLAND

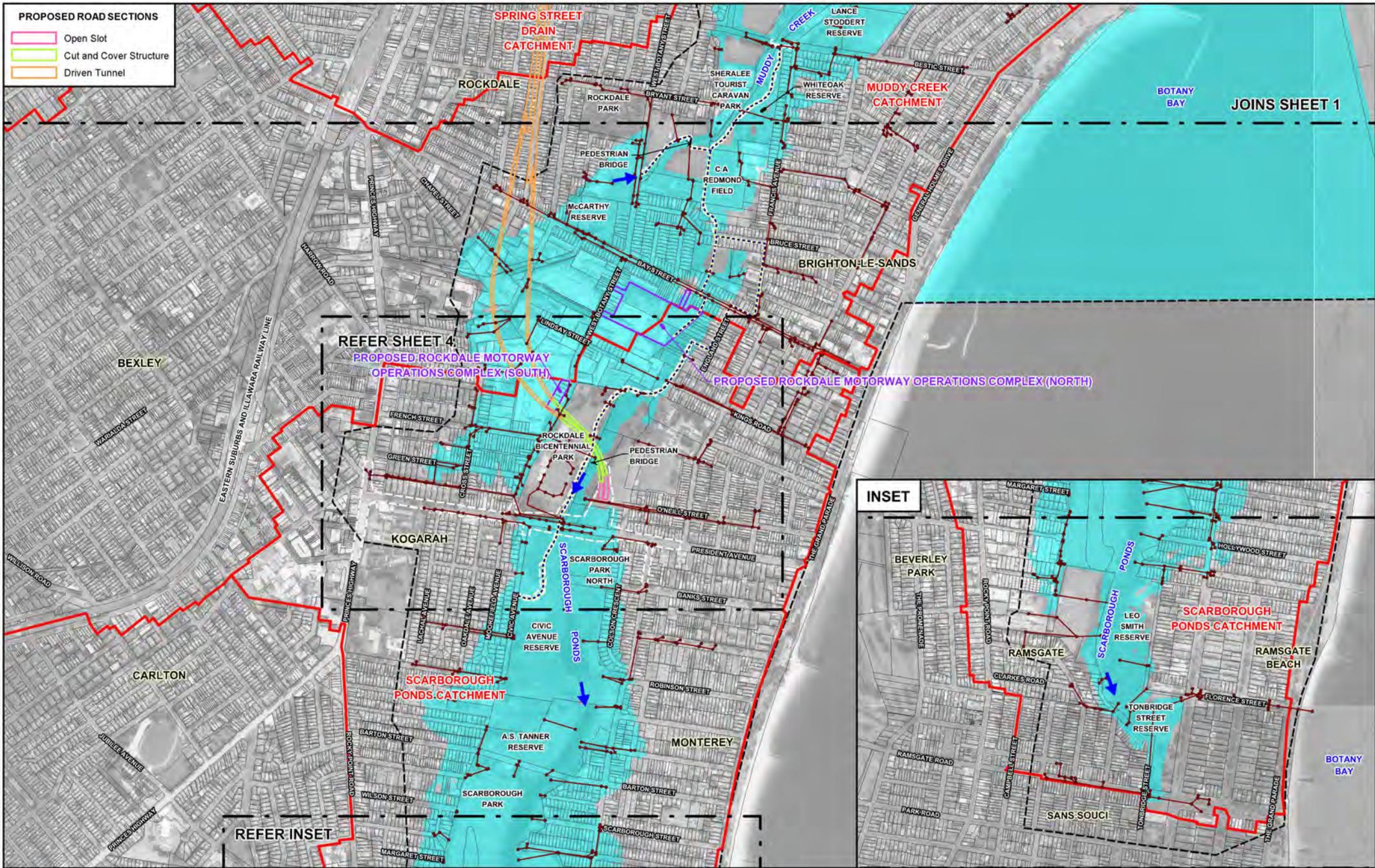
SPRING STREET DRAIN
 CATCHMENT



Note:
 The ground surface model incorporated in TUFLOW is based on LIDAR survey which has been sampled on a 2m (min.) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
 Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

- LEGEND**
- Proposed Active Transport Corridor
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Flood Planning Area
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



PROPOSED ROAD SECTIONS

- Open Slot
- Cut and Cover Structure
- Driven Tunnel

Note:
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LEGEND

- Proposed Active Transport Corridor
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Flood Planning Area
- Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

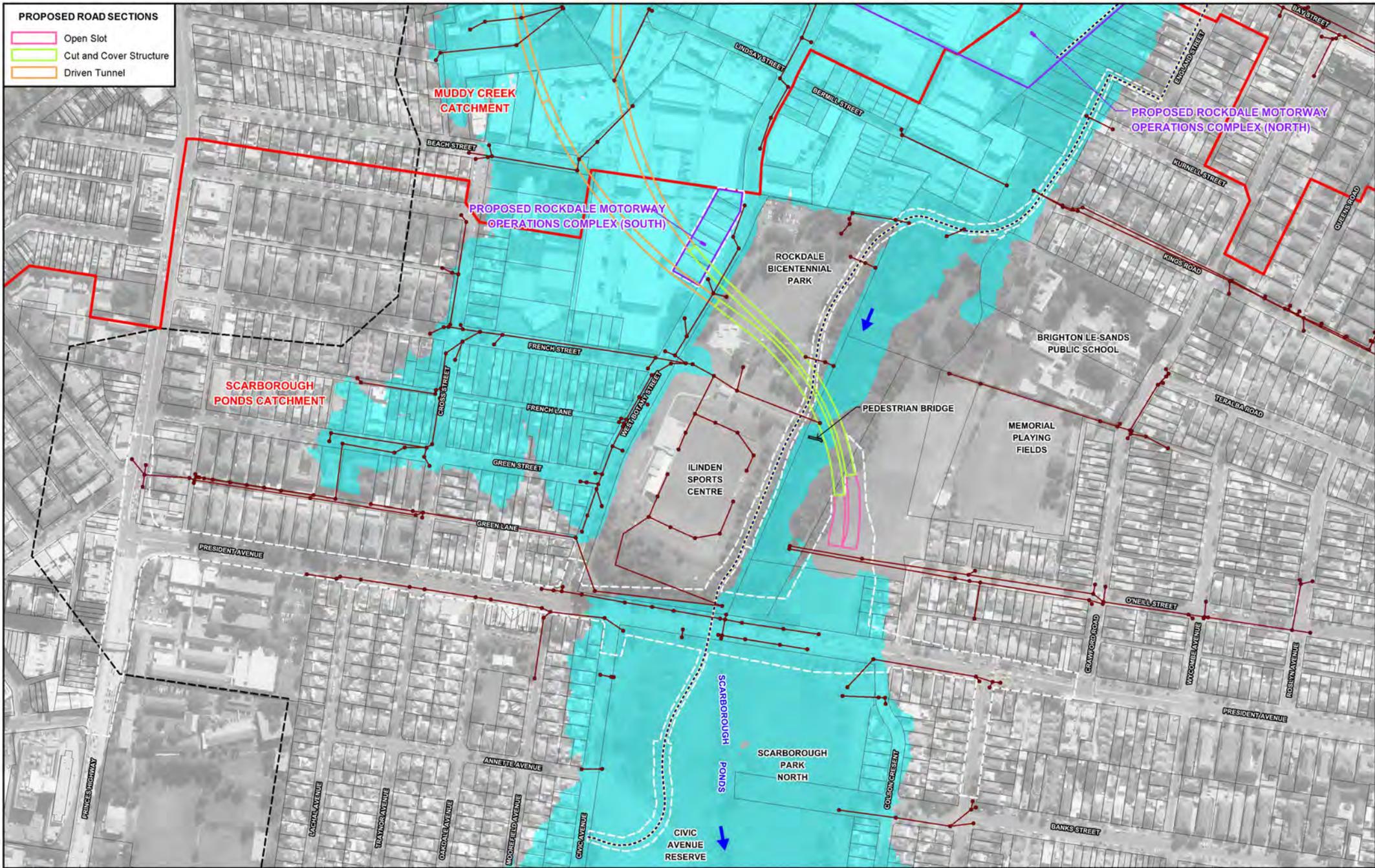
Figure C-6
 Sheet 3 of 4

FLOOD PLANNING AREA
 PRESENT DAY CONDITIONS - 1% AEP



Scale: 1:12,000
 0 120 240 360 m





N
 40 0 40 80 120 m
 Scale: 1:4,000

Note:
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- LEGEND**
- Proposed Active Transport Corridor
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Flood Planning Area
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-6
 Sheet 4 of 4

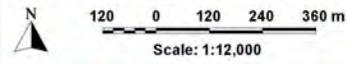
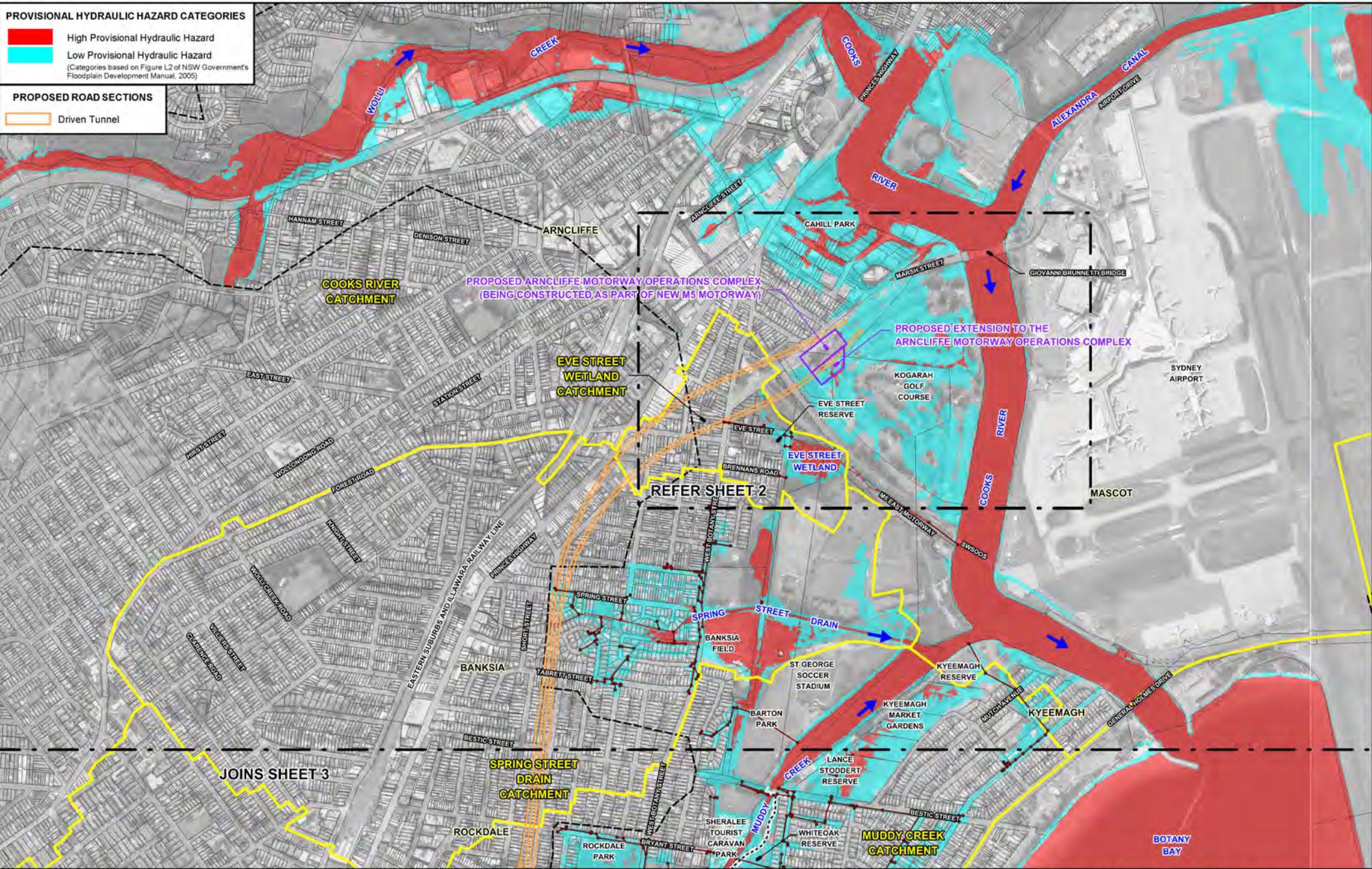
FLOOD PLANNING AREA
 PRESENT DAY CONDITIONS - 1% AEP

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

- High Provisional Hydraulic Hazard
 - Low Provisional Hydraulic Hazard
- (Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

PROPOSED ROAD SECTIONS

- Driven Tunnel



Note:
 The ground surface model incorporated in TUFLOW is based on LIDAR survey which has been sampled on a 2m (min.) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
 Flood depths are therefore approximate only and require interpretation by a suitably qualified engineer to determine flooding behaviour in individual allotments. Any assessment of flooding in individual allotments may also require a site survey.

- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-7
 Sheet 1 of 4

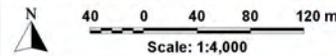
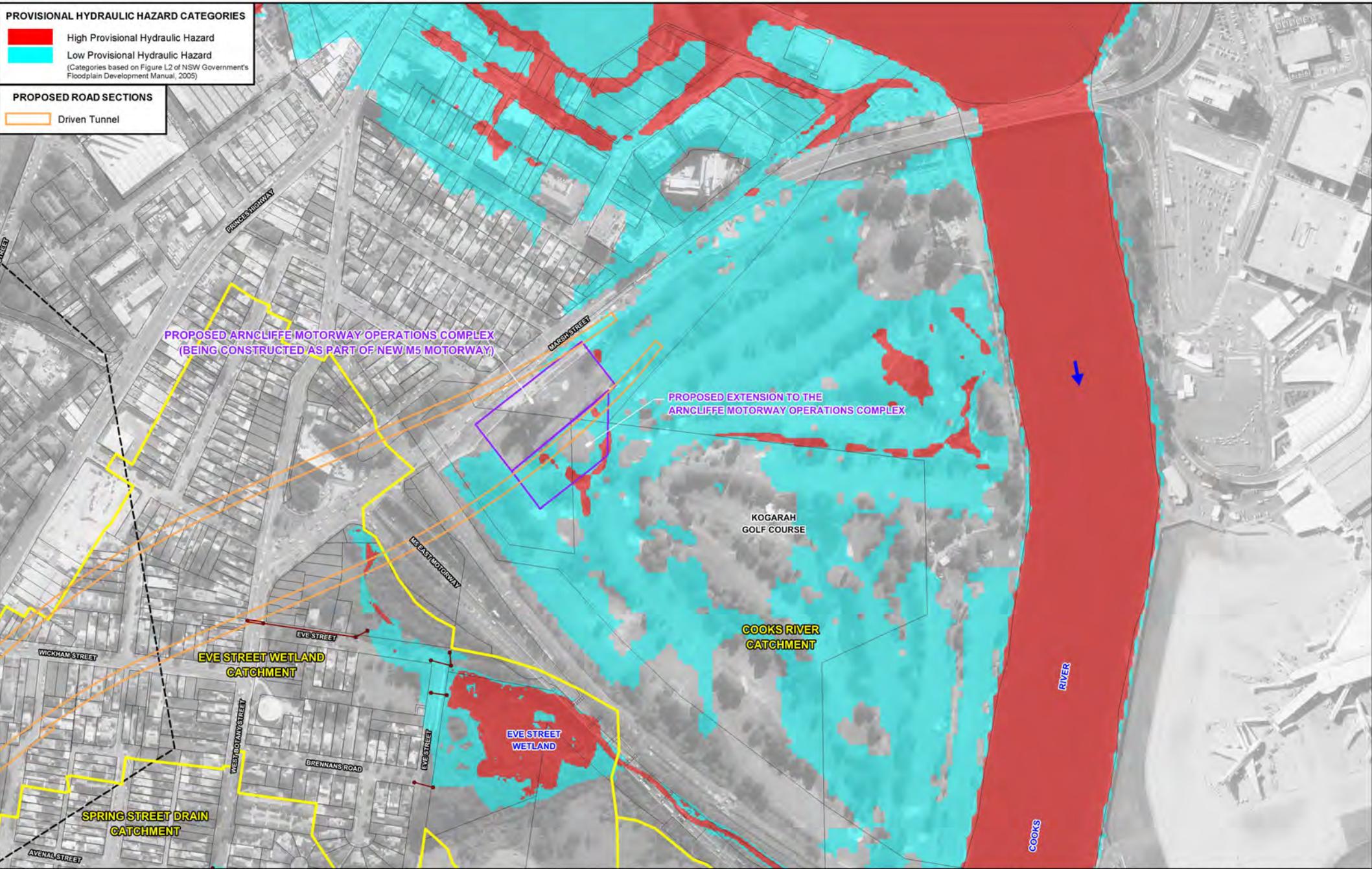
PROVISIONAL FLOOD HAZARD CATEGORISATION
 PRESENT DAY CONDITIONS - 1% AEP

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard
(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

PROPOSED ROAD SECTIONS

- Driven Tunnel



Note:
The ground surface model incorporated in TUFLOW is based on LIDAR survey which has been sampled on a 2m (min.) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-7
Sheet 2 of 4

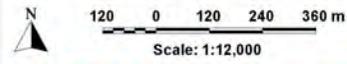
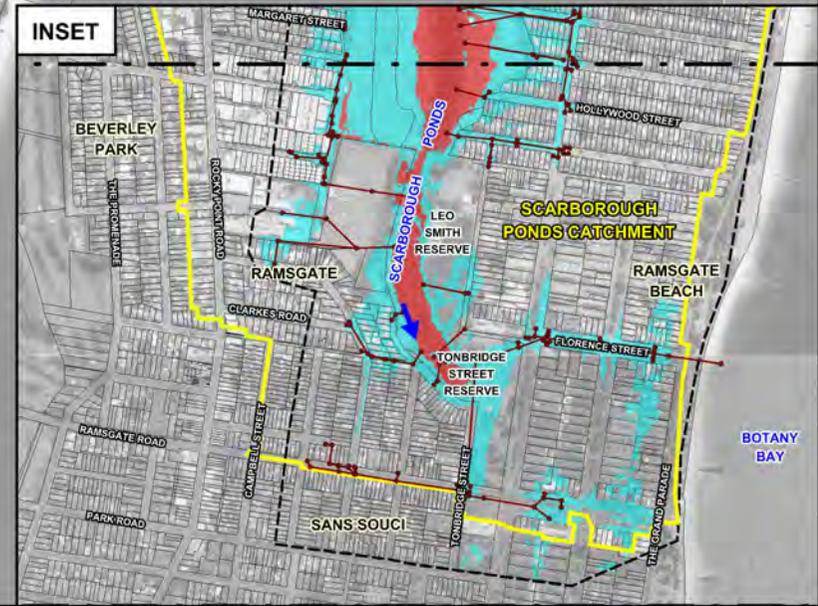
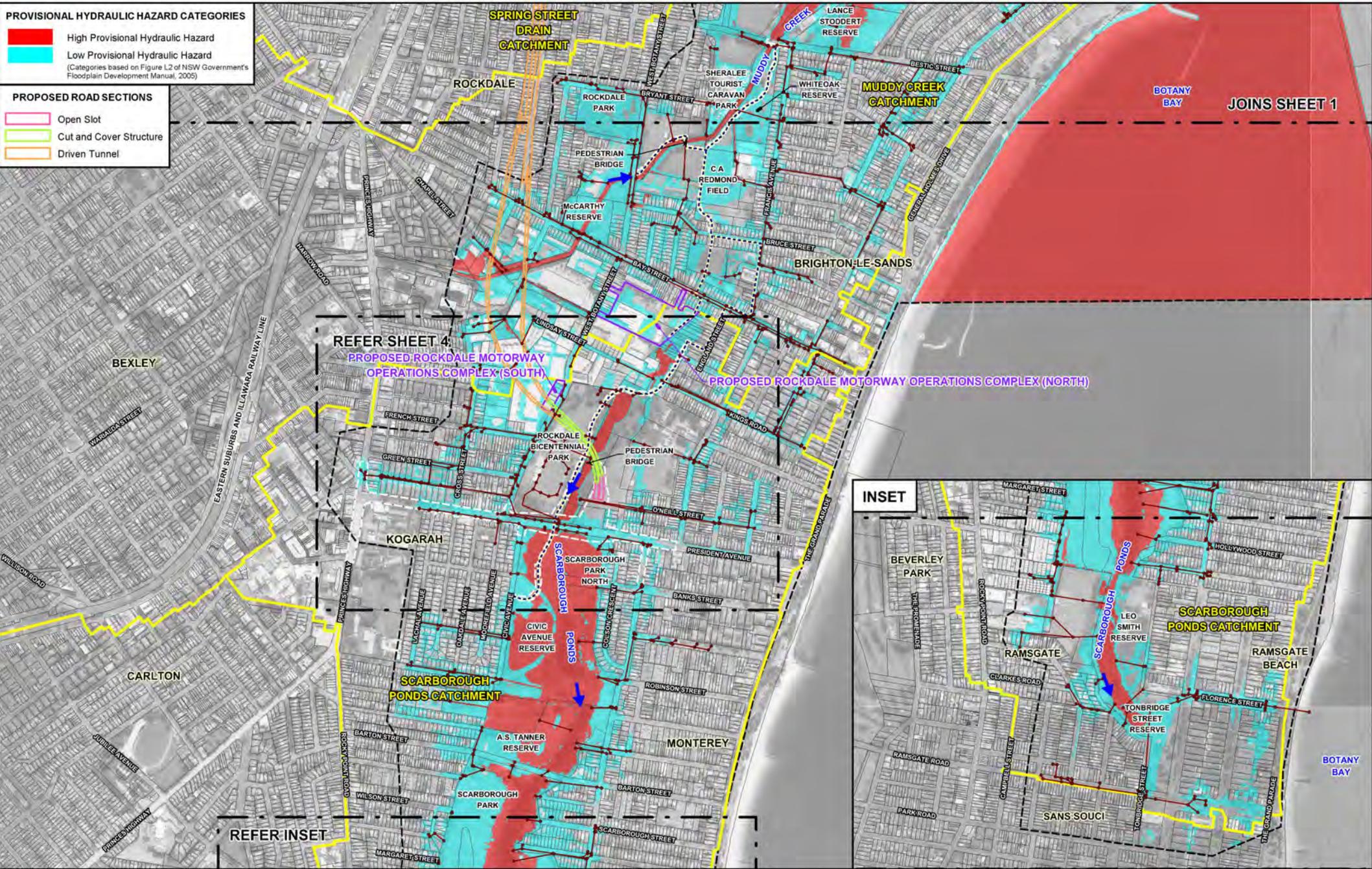
**PROVISIONAL FLOOD HAZARD CATEGORISATION
PRESENT DAY CONDITIONS - 1% AEP**

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard
(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

PROPOSED ROAD SECTIONS

- Open Slot
- Cut and Cover Structure
- Driven Tunnel



Note:
The ground surface model incorporated in TUFLOW is based on LIDAR survey which has been sampled on a 2m (min.) grid and does not necessarily incorporate localised features which can influence flooding behaviour in individual allotments.
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-7
Sheet 3 of 4

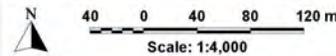
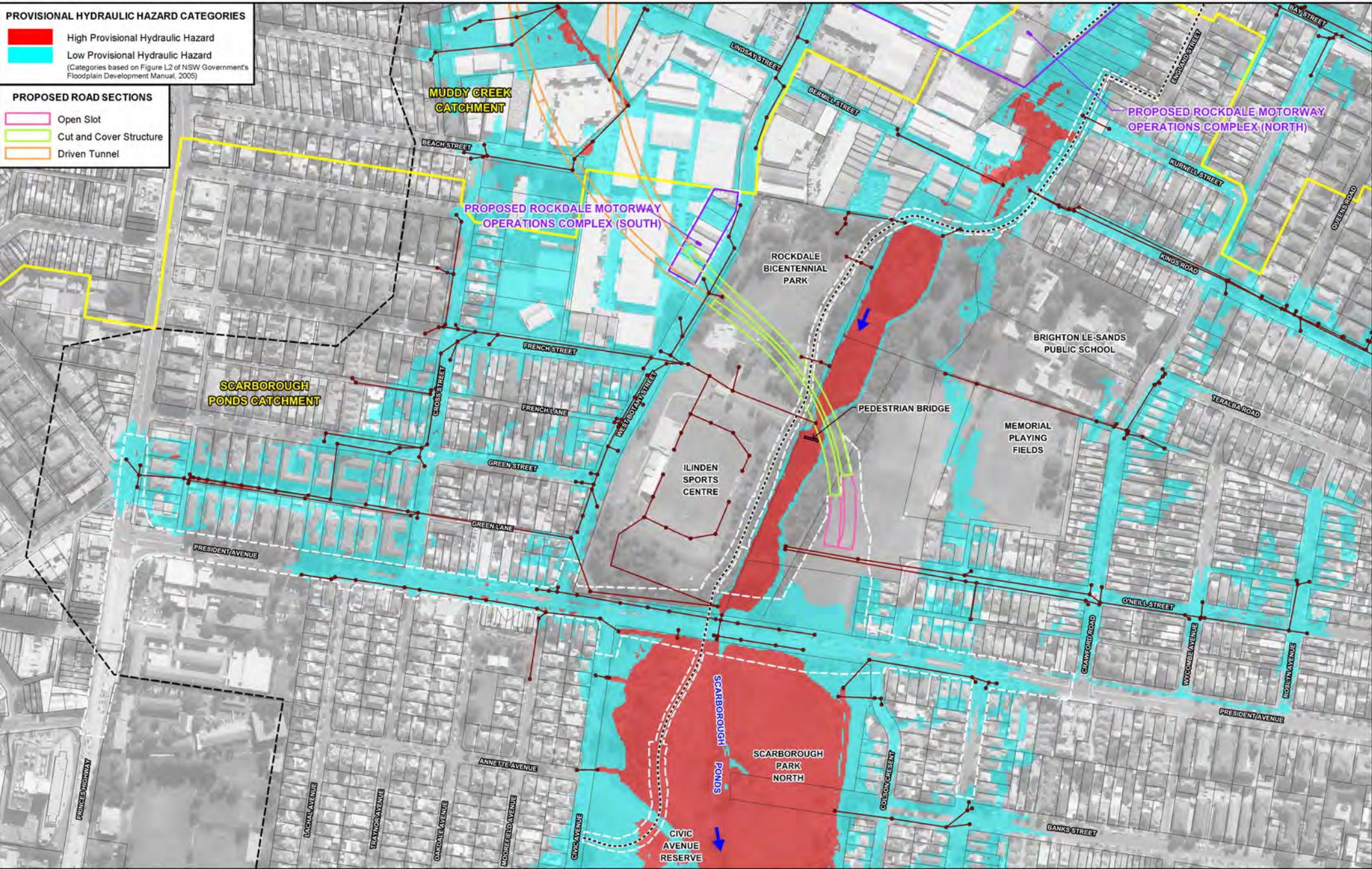
PROVISIONAL FLOOD HAZARD CATEGORISATION
PRESENT DAY CONDITIONS - 1% AEP

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

- High Provisional Hydraulic Hazard
- Low Provisional Hydraulic Hazard
(Categories based on Figure L2 of NSW Government's Floodplain Development Manual, 2005)

PROPOSED ROAD SECTIONS

- Open Slot
- Cut and Cover Structure
- Driven Tunnel



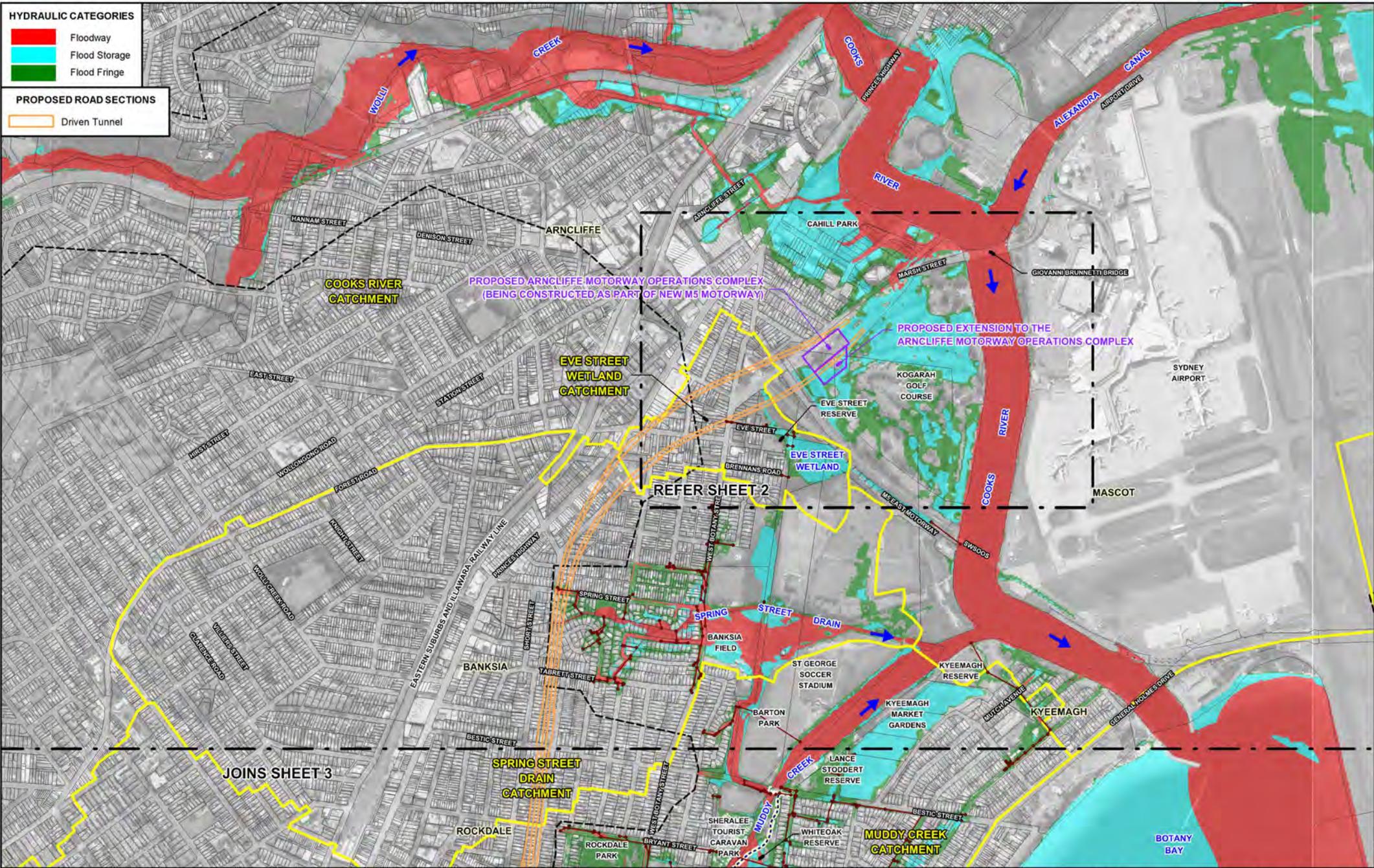
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-7
Sheet 4 of 4

PROVISIONAL FLOOD HAZARD CATEGORISATION
PRESENT DAY CONDITIONS - 1% AEP

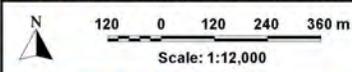


HYDRAULIC CATEGORIES

- █ Floodway
- █ Flood Storage
- █ Flood Fringe

PROPOSED ROAD SECTIONS

- Driven Tunnel

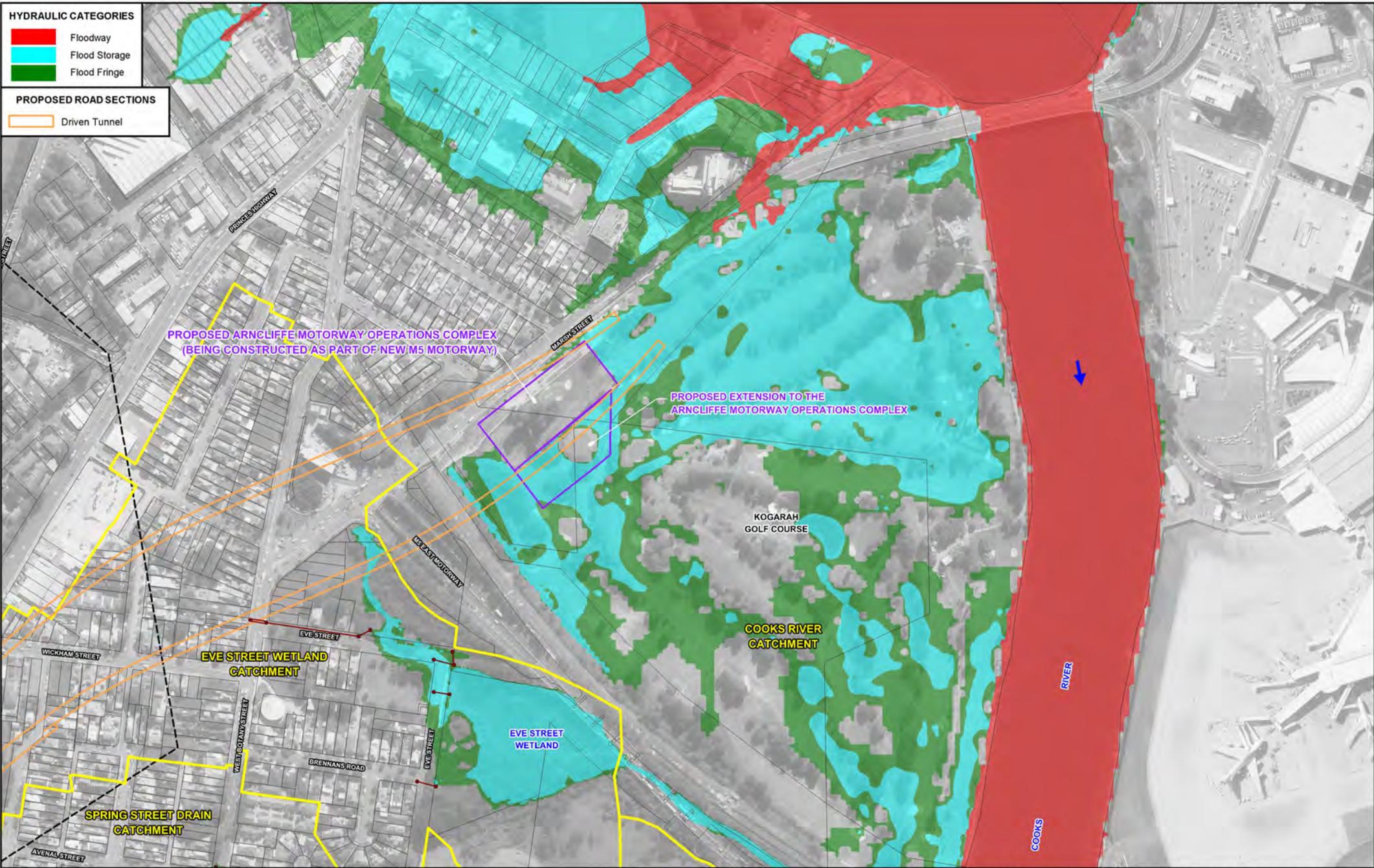


Note:
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LEGEND

- Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

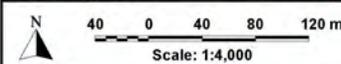


HYDRAULIC CATEGORIES

- █ Floodway
- █ Flood Storage
- █ Flood Fringe

PROPOSED ROAD SECTIONS

- Driven Tunnel

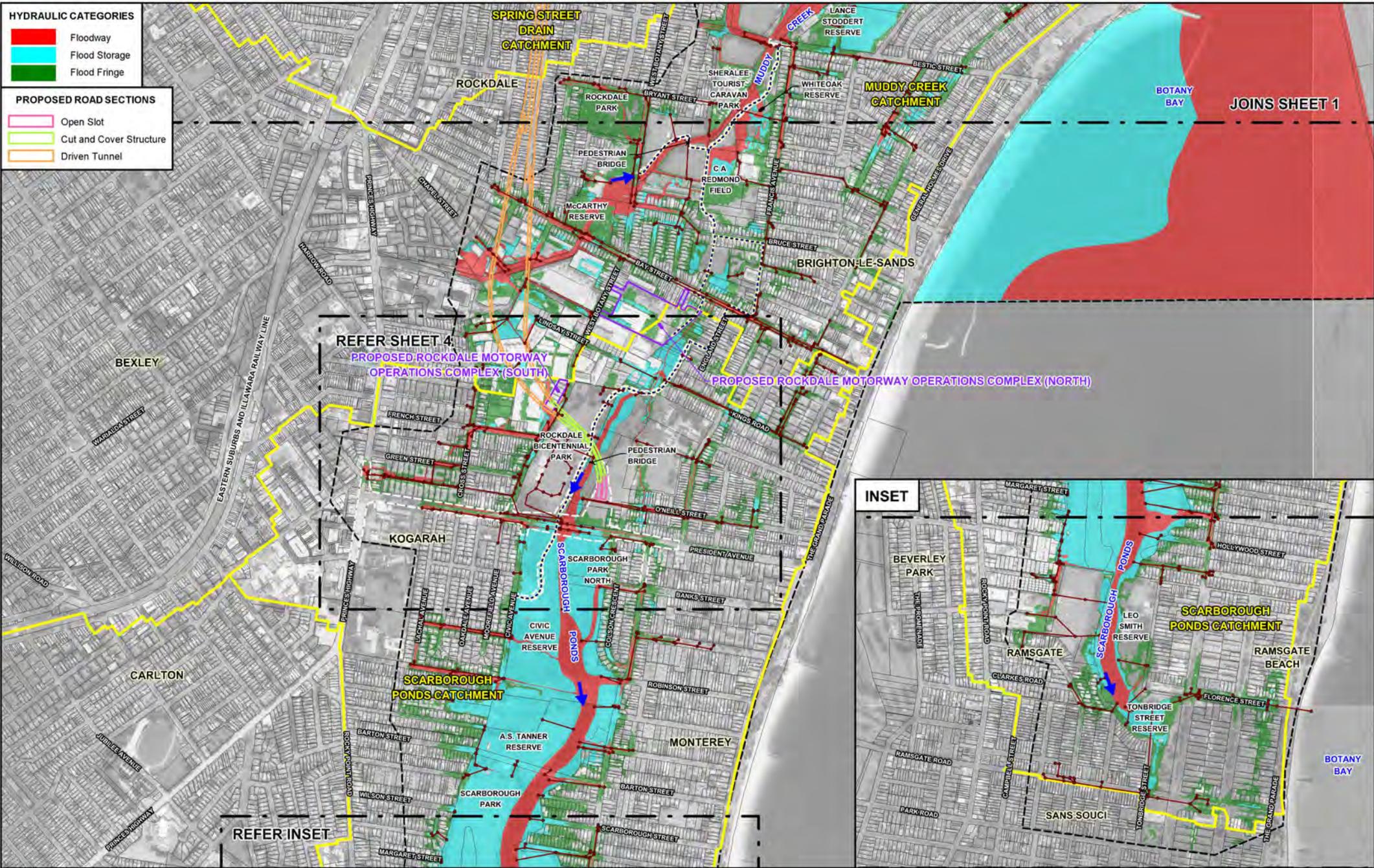


Note:
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LEGEND

- Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

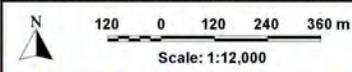


HYDRAULIC CATEGORIES

- █ Floodway
- █ Flood Storage
- █ Flood Fringe

PROPOSED ROAD SECTIONS

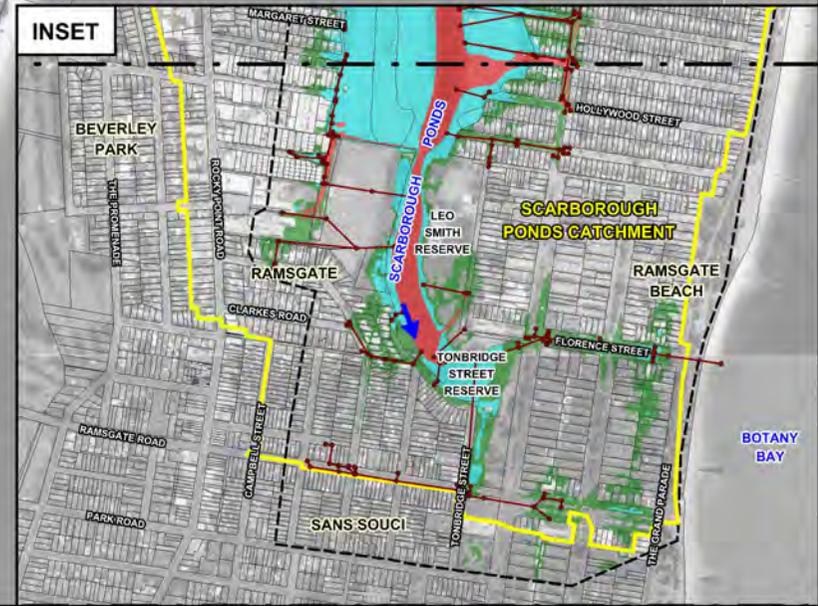
- Open Slot
- Cut and Cover Structure
- Driven Tunnel



Note:
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LEGEND

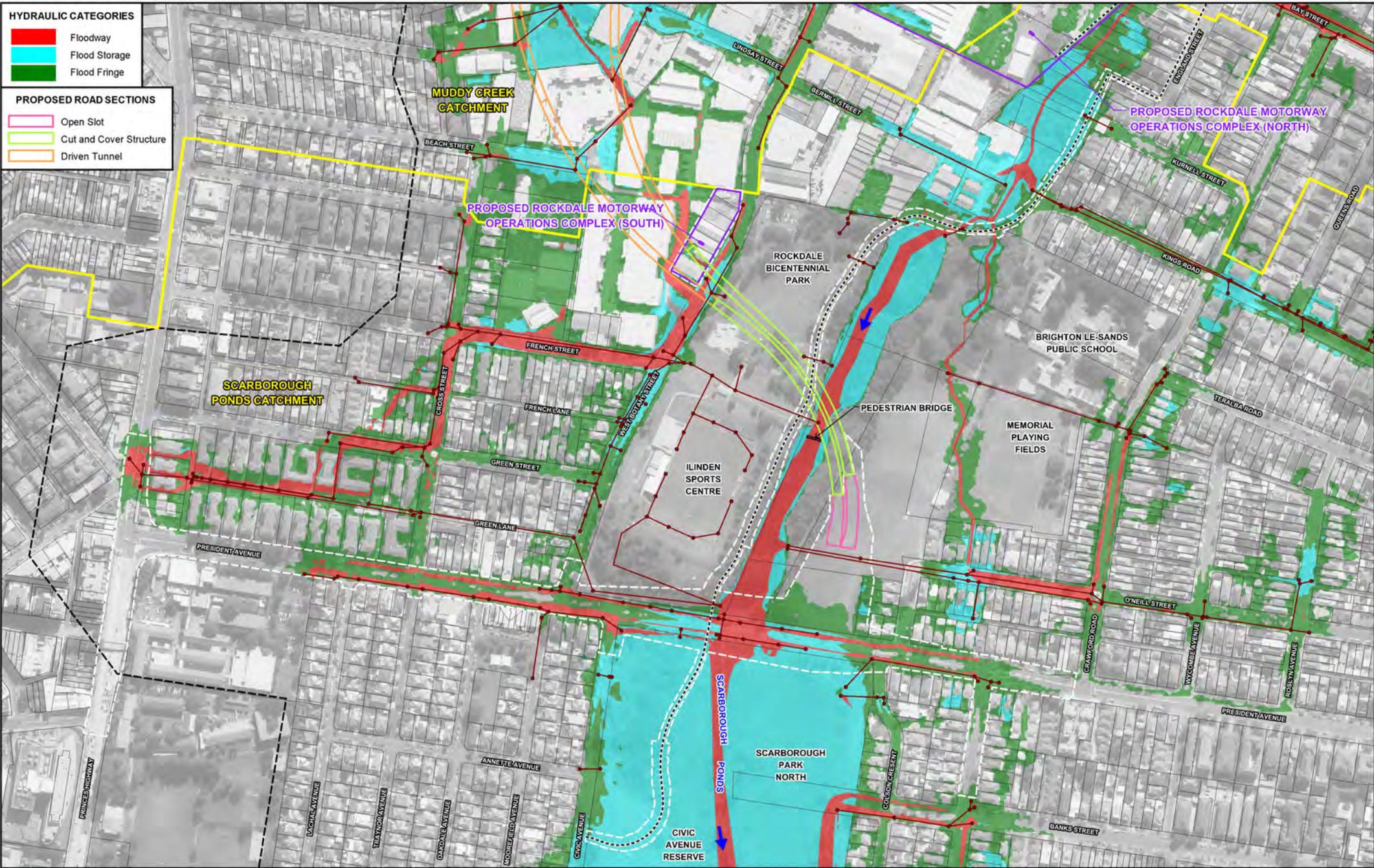
- Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Extent of Proposed Tunnel Ancillary Facilities
- Existing Drainage System
- Two-Dimensional Model Boundary
- Catchment Boundary



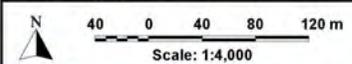
Lyllall & Associates

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-8
 Sheet 3 of 4
 PRELIMINARY HYDRAULIC CATEGORISATION
 PRESENT DAY CONDITIONS - 1% AEP



- HYDRAULIC CATEGORIES**
- █ Floodway
 - █ Flood Storage
 - █ Flood Fringe
- PROPOSED ROAD SECTIONS**
- Open Slot
 - Cut and Cover Structure
 - Driven Tunnel



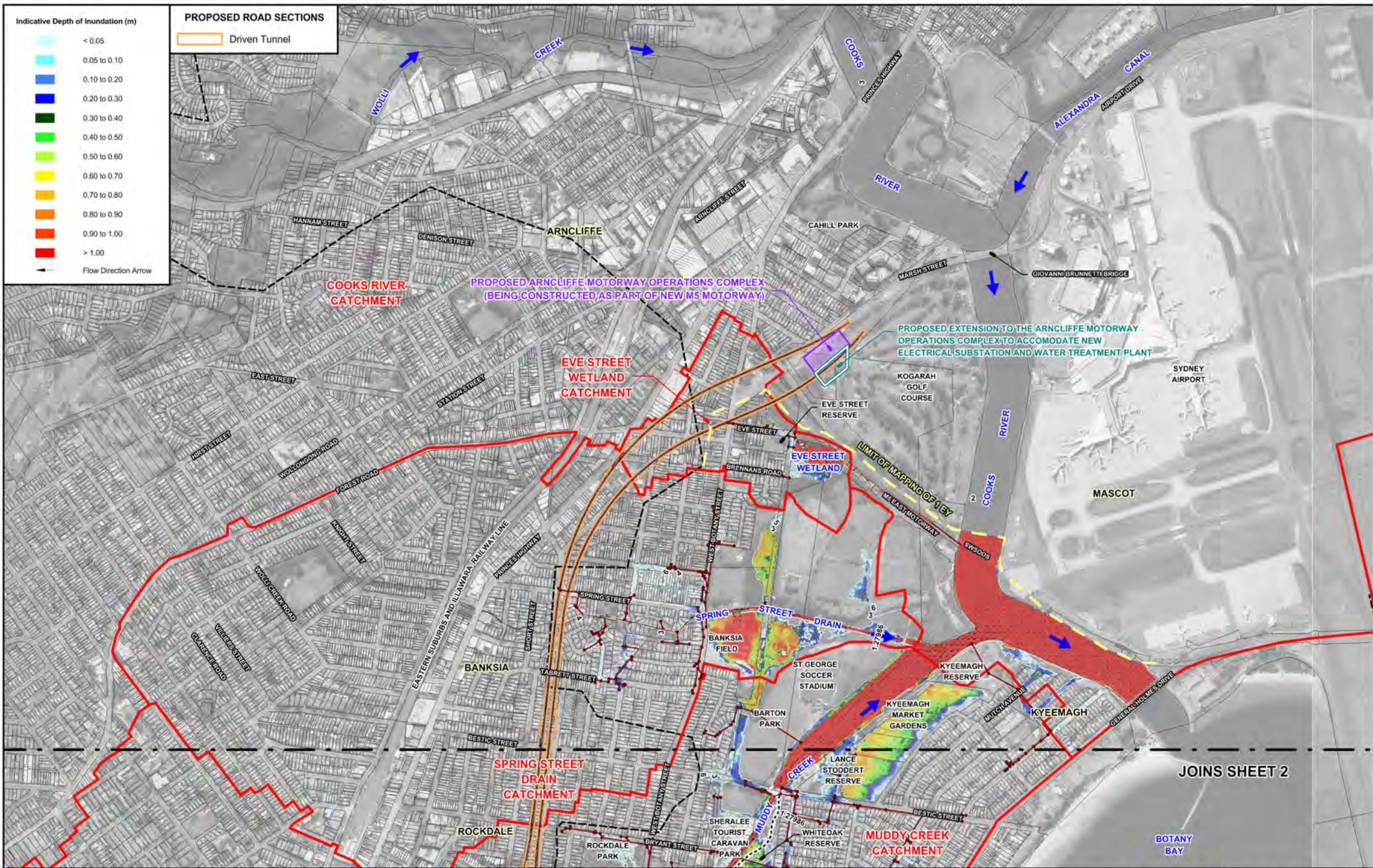
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- LEGEND**
- Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Extent of Proposed Tunnel Ancillary Facilities
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Catchment Boundary

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-8
 Sheet 4 of 4

PRELIMINARY HYDRAULIC CATEGORISATION
 PRESENT DAY CONDITIONS - 1% AEP



PROPOSED ROAD SECTIONS

Driven Tunnel

COOKS RIVER CATCHMENT

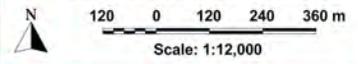
PROPOSED ARNCLIFFE MOTORWAY OPERATIONS COMPLEX (BEING CONSTRUCTED AS PART OF NEW M5 MOTORWAY)

EVE STREET WETLAND CATCHMENT

PROPOSED EXTENSION TO THE ARNCLIFFE MOTORWAY OPERATIONS COMPLEX TO ACCOMMODATE NEW ELECTRICAL SUBSTATION AND WATER TREATMENT PLANT

SPRING STREET DRAIN CATCHMENT

MUDDY CREEK CATCHMENT



Note:
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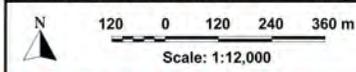
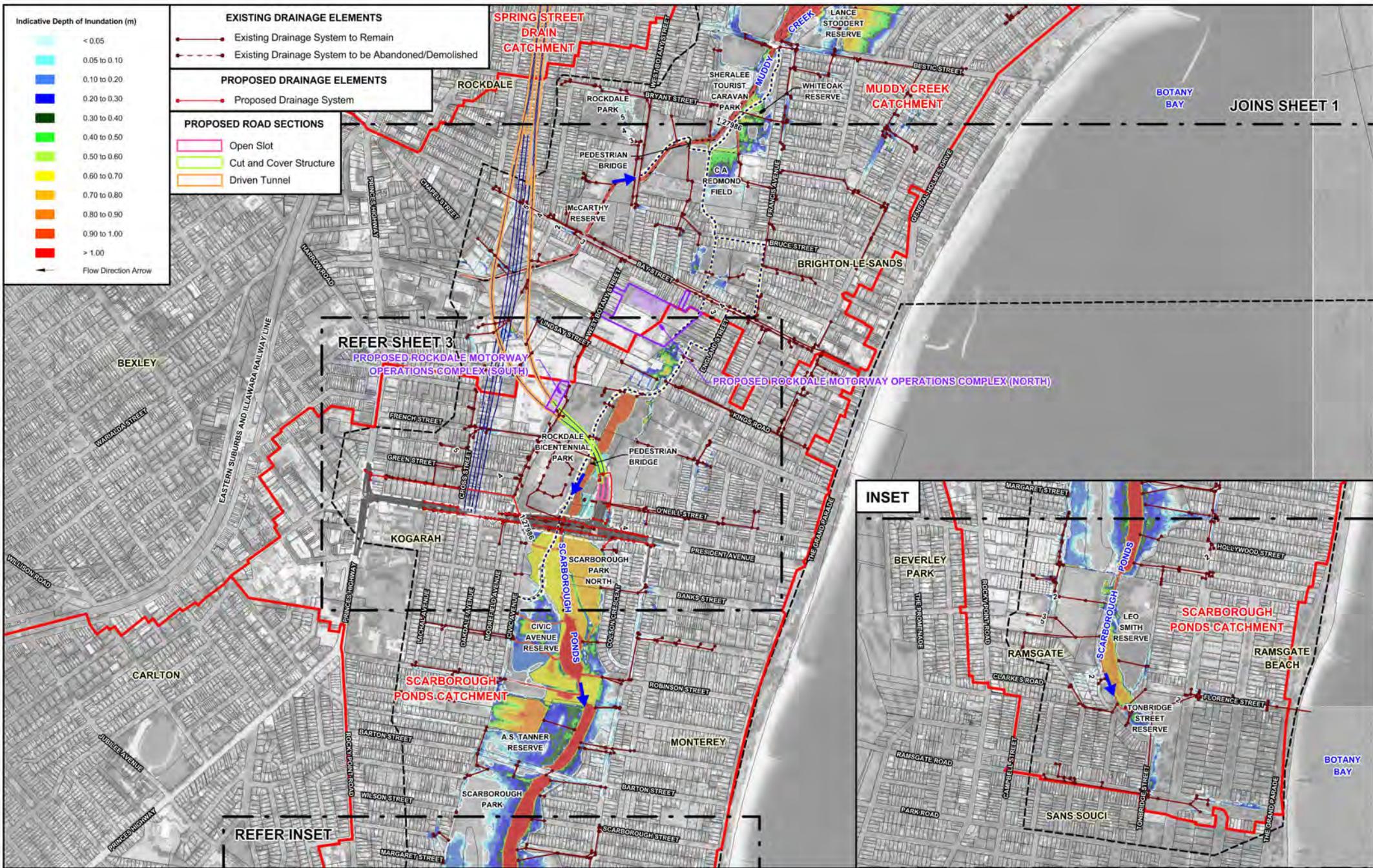
- LEGEND**
- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-9
Sheet 1 of 3

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 1 EY





Note:
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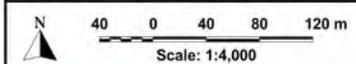
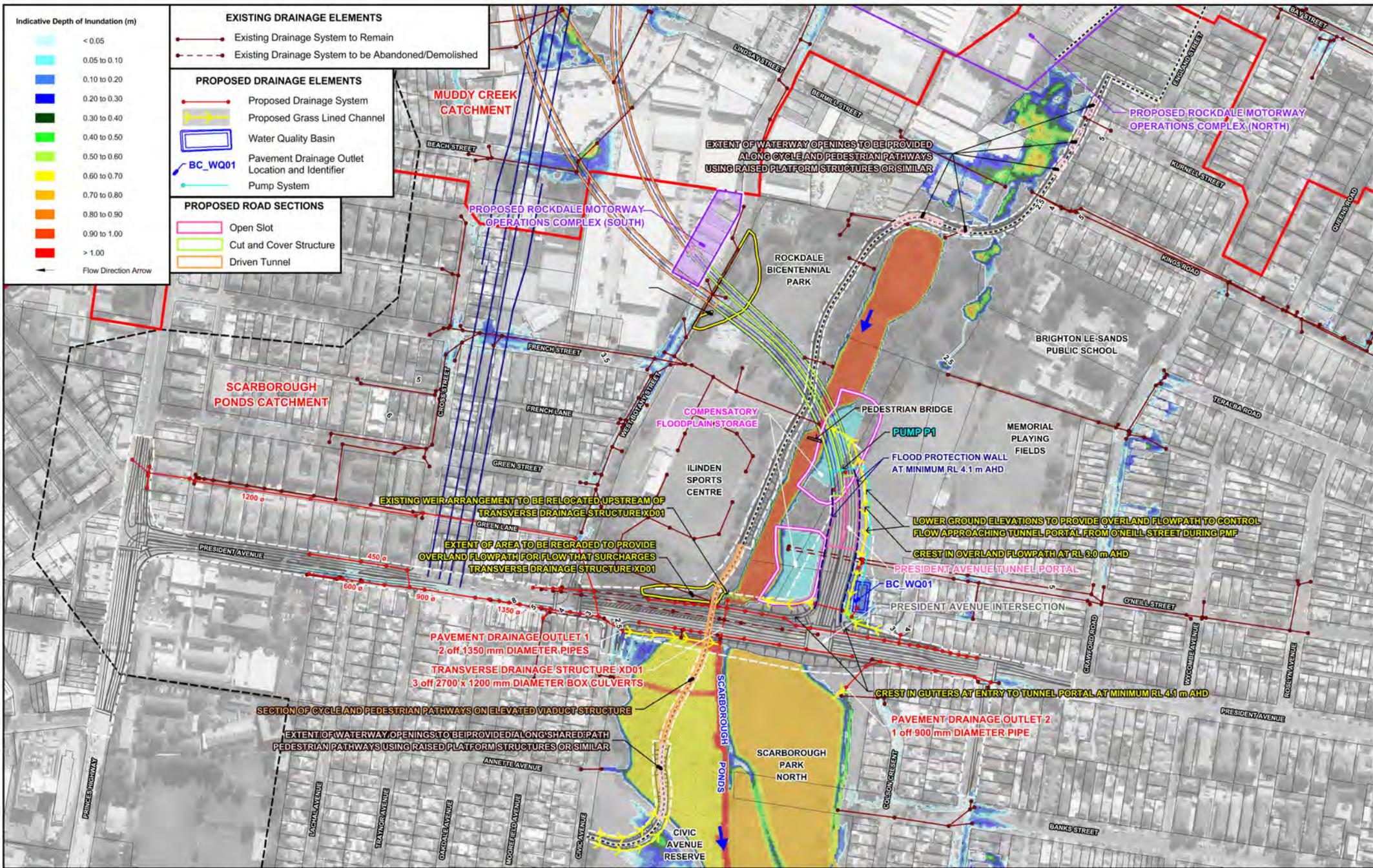
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-9
 Sheet 2 of 3

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 OPERATIONAL CONDITIONS - 1 EY**



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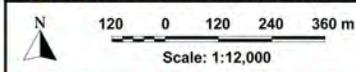
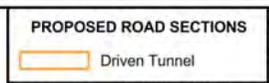
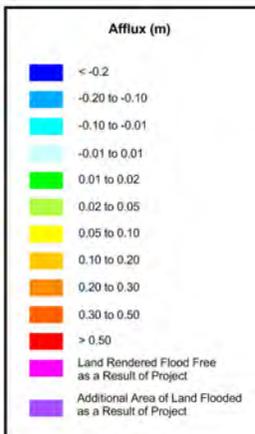
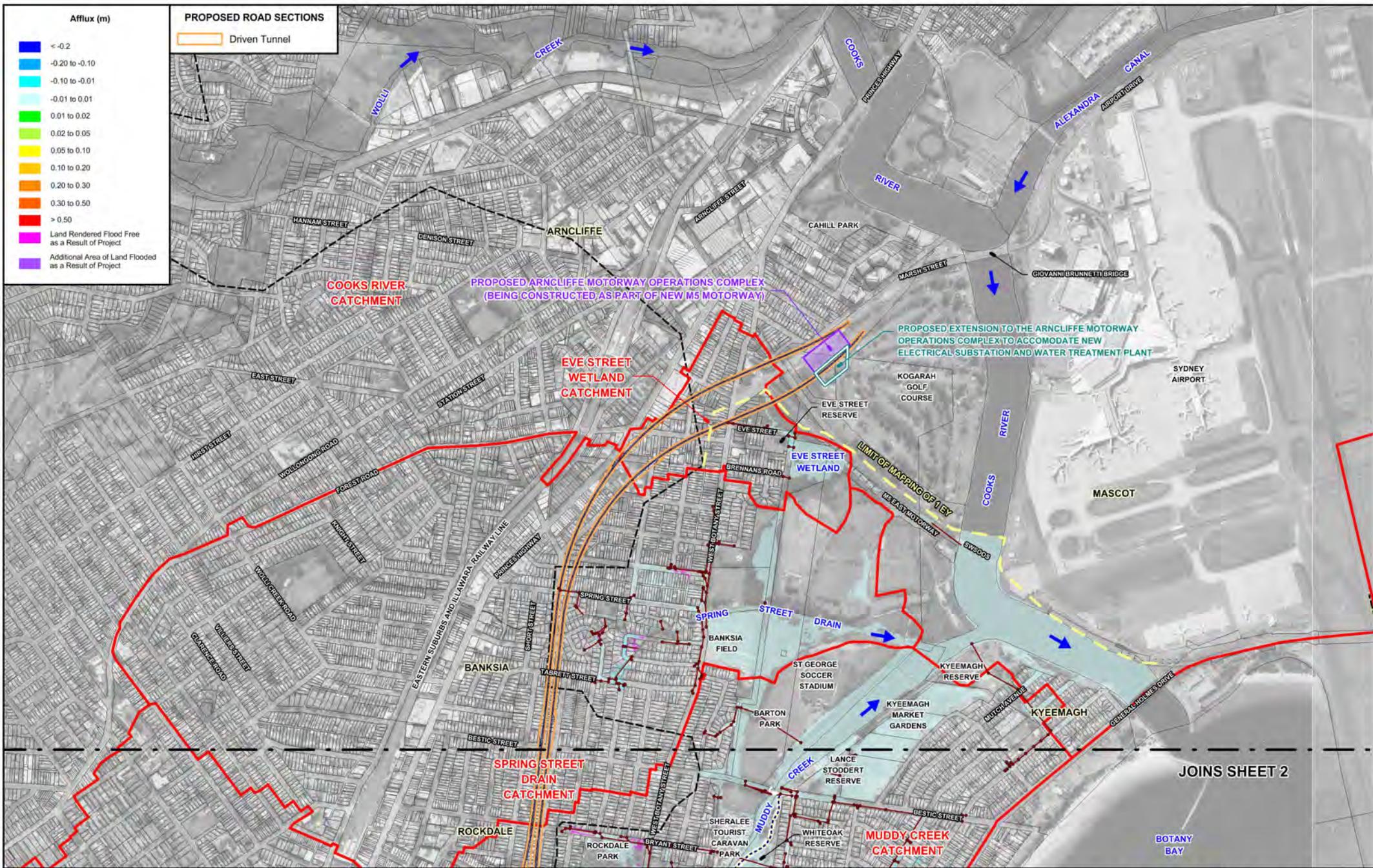
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

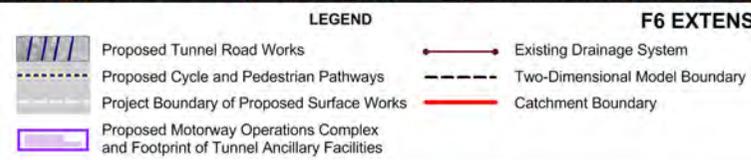
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-9
 Sheet 3 of 3

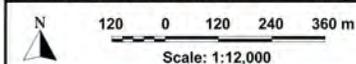
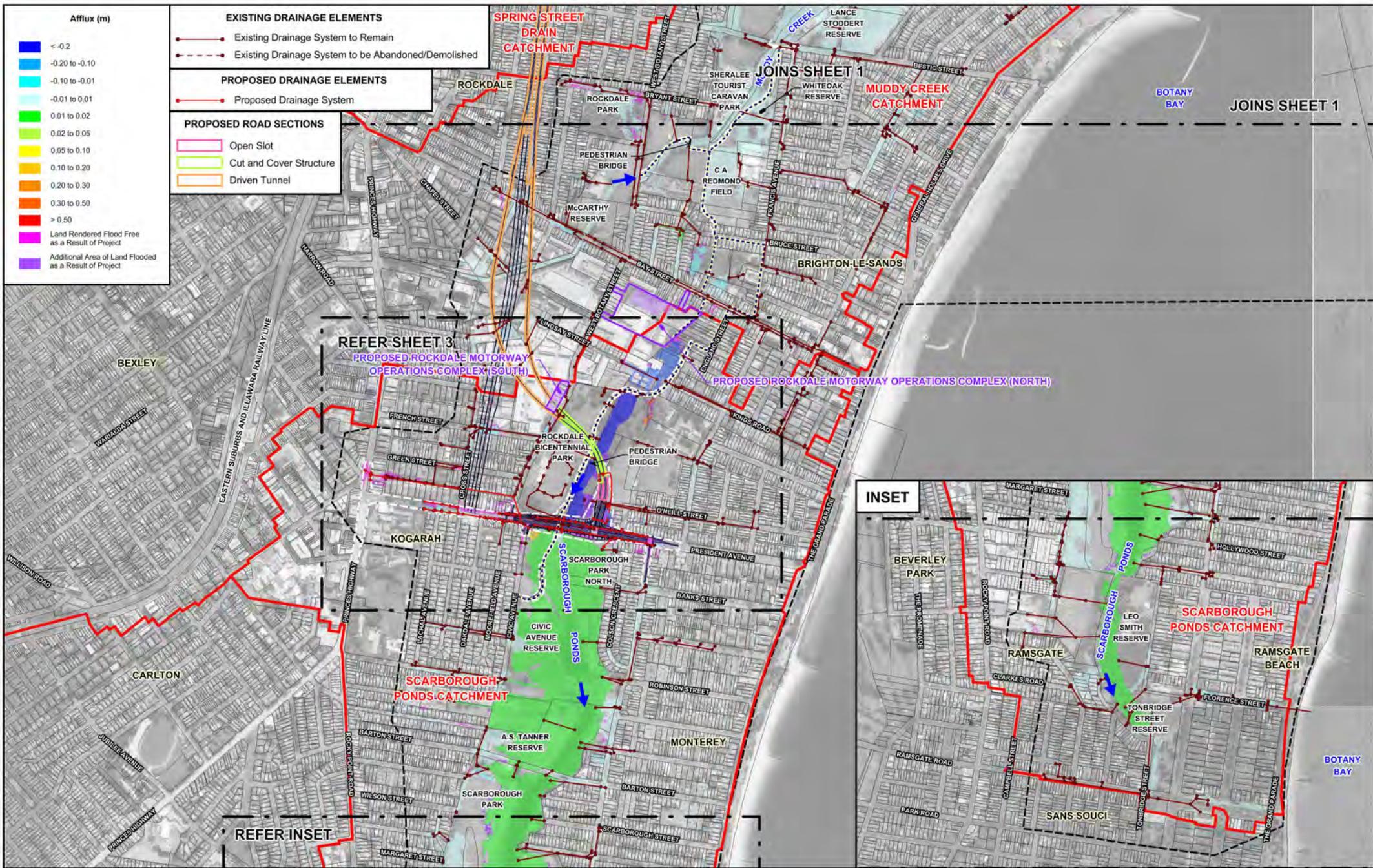
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 1 EY



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**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



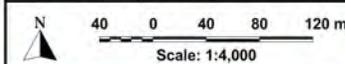
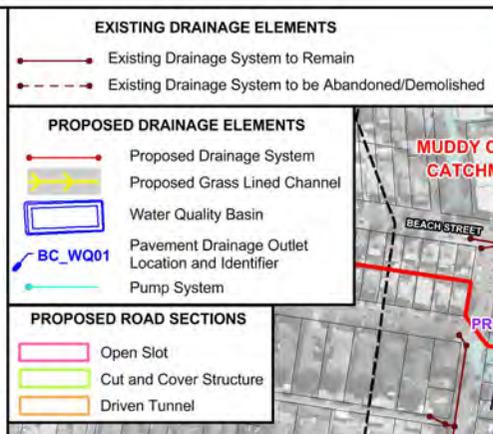
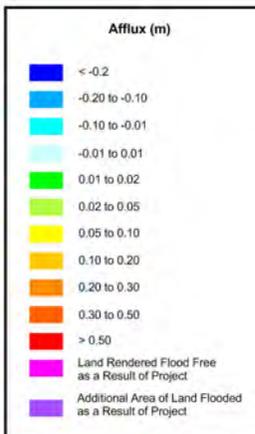
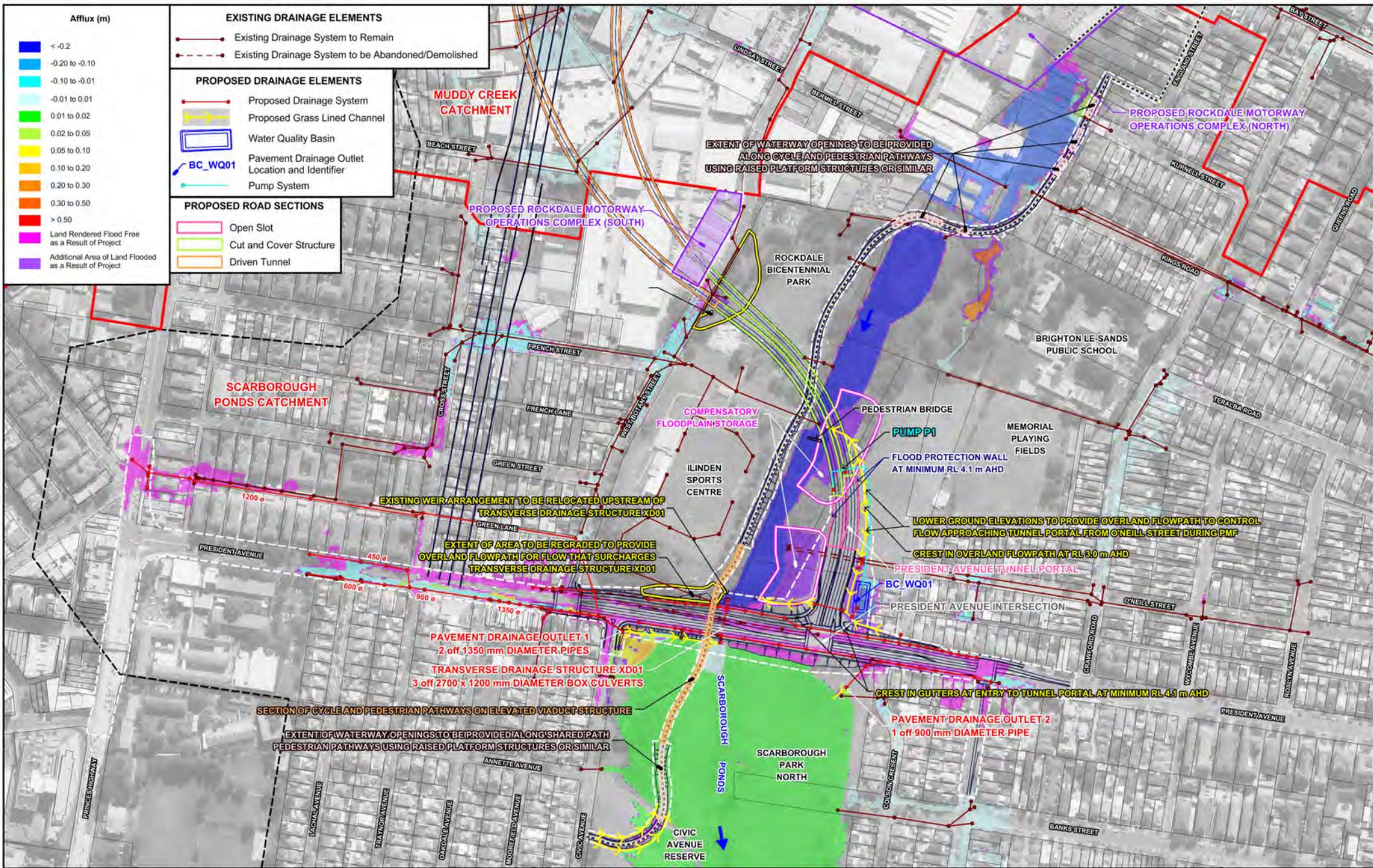
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- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works

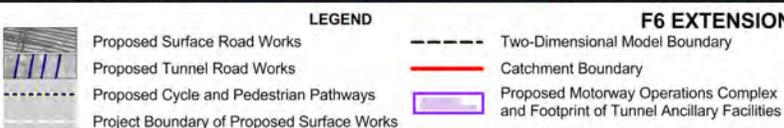
- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-10
 Sheet 2 of 3

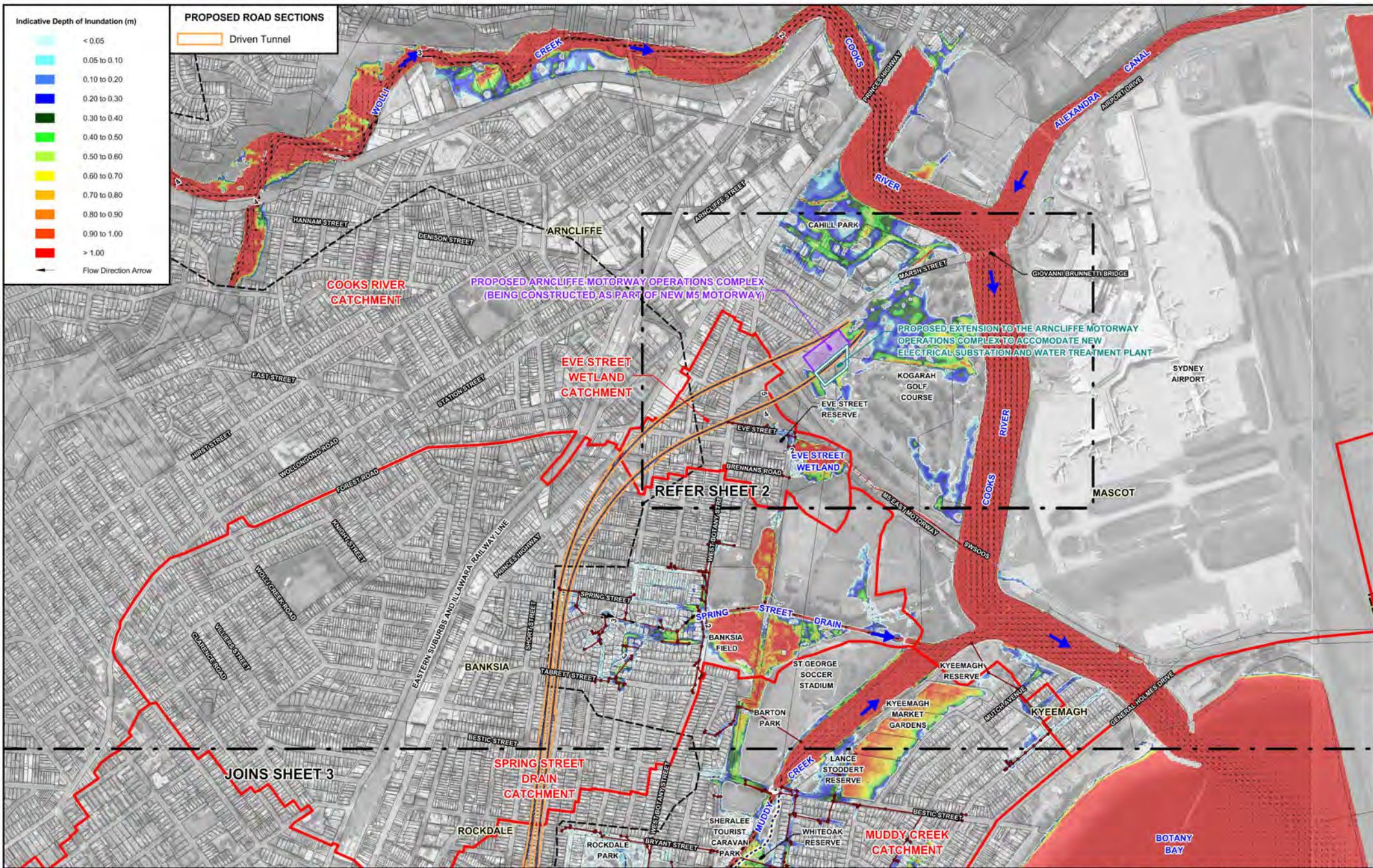


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**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-10
 Sheet 3 of 3



Scale: 1:12,000

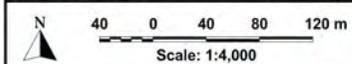
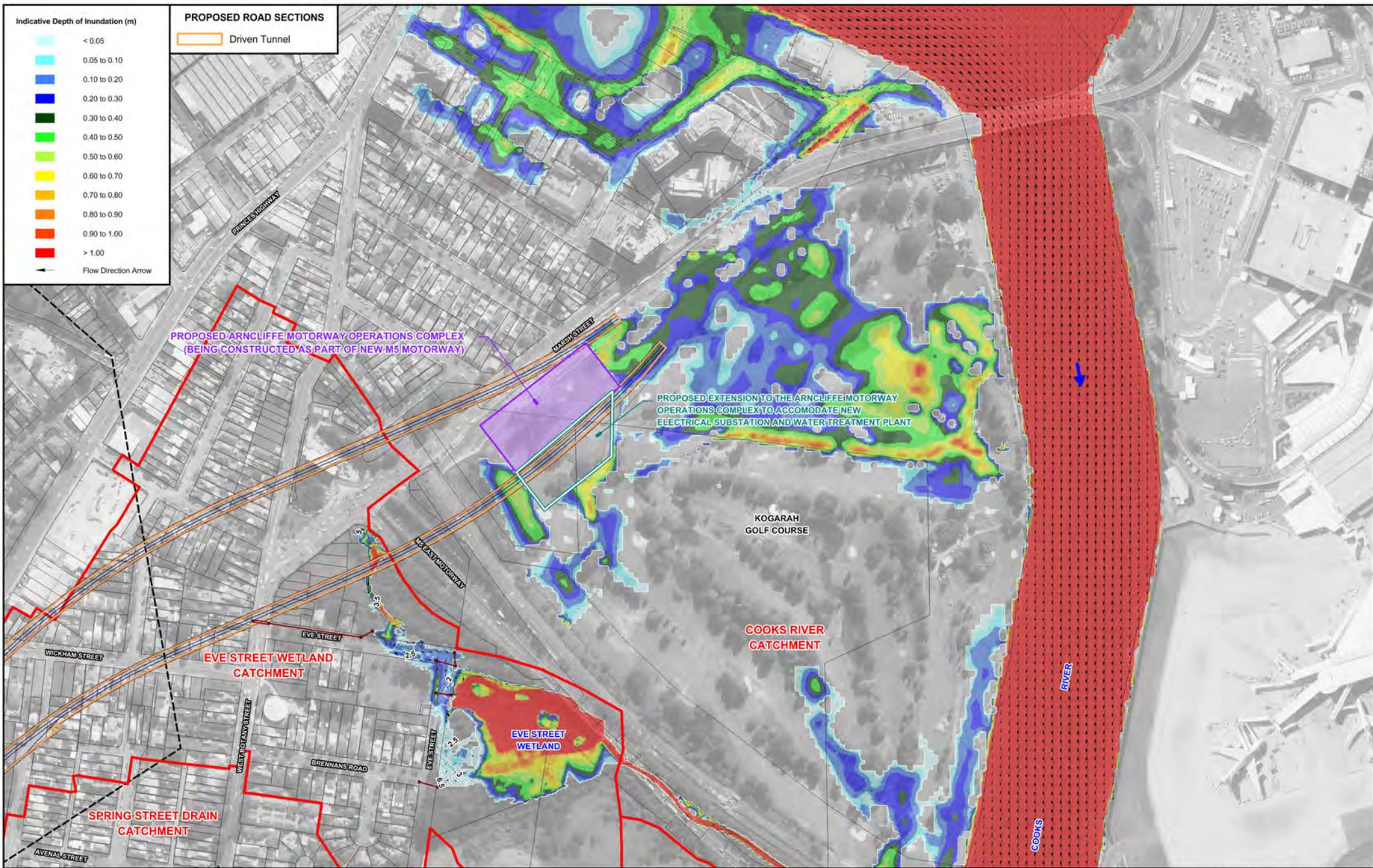
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- LEGEND**
- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-11
 Sheet 1 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 20% AEP



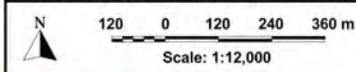
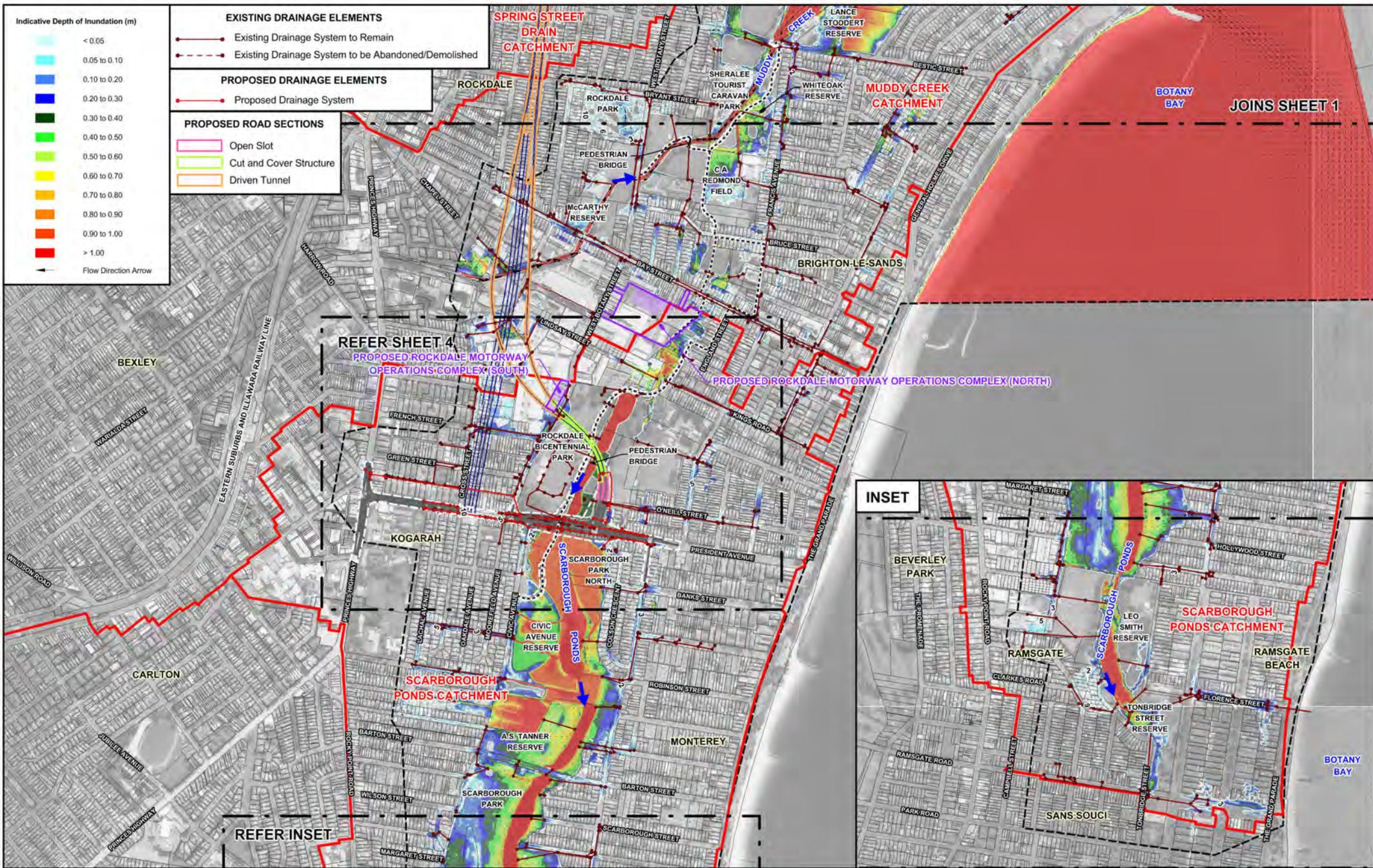
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- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-11
 Sheet 2 of 4

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 OPERATIONAL CONDITIONS - 20% AEP**



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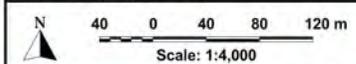
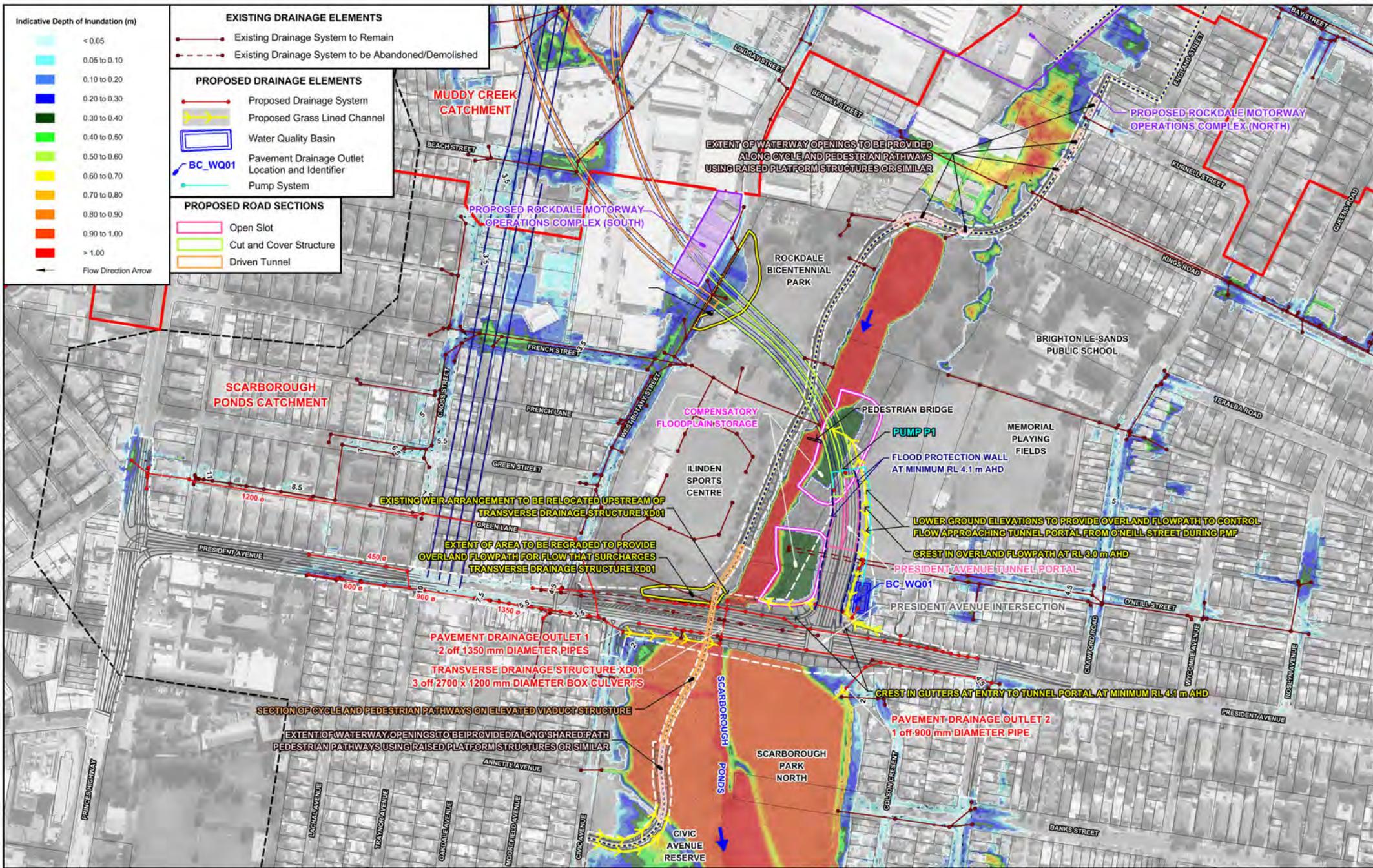
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION (NEW M5 TO PRESIDENT AVENUE)
 TECHNICAL WORKING PAPER: FLOODING AND DRAINAGE**

Figure C-11
 Sheet 3 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 20% AEP



Note:
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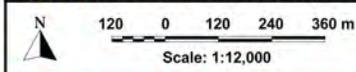
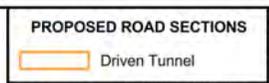
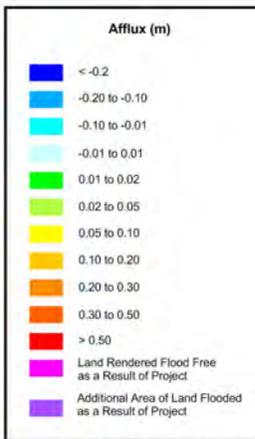
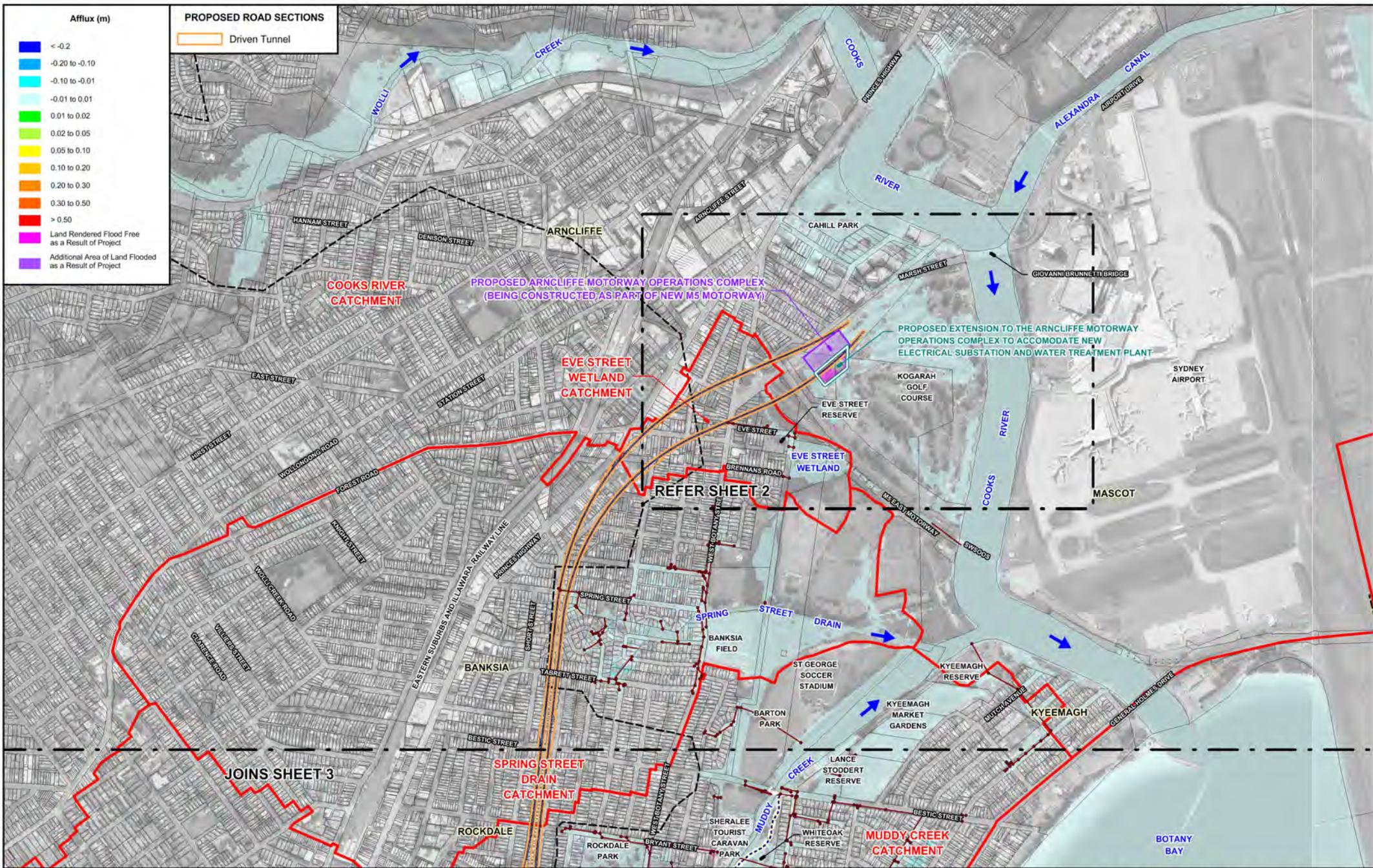
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

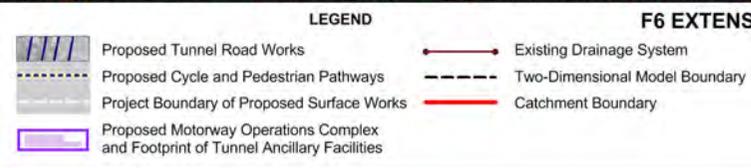
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-11
 Sheet 4 of 4

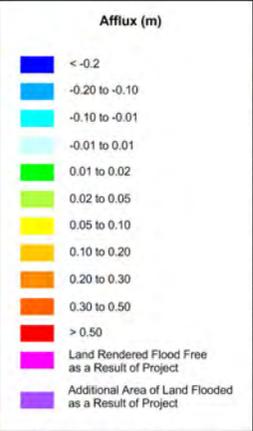
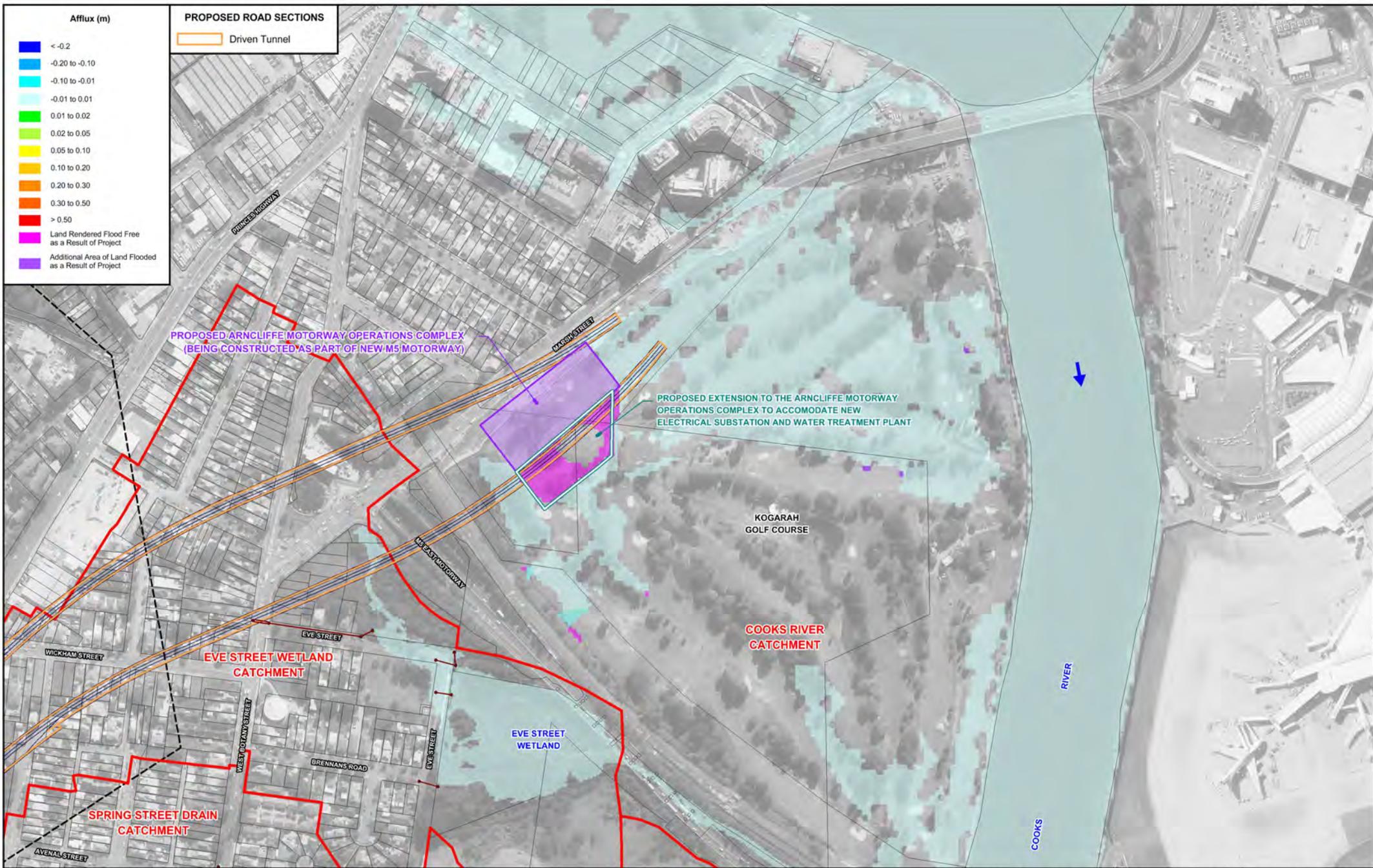
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 20% AEP



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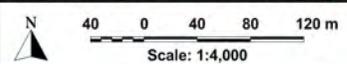


**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

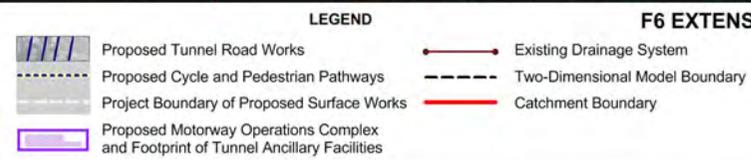


PROPOSED ROAD SECTIONS

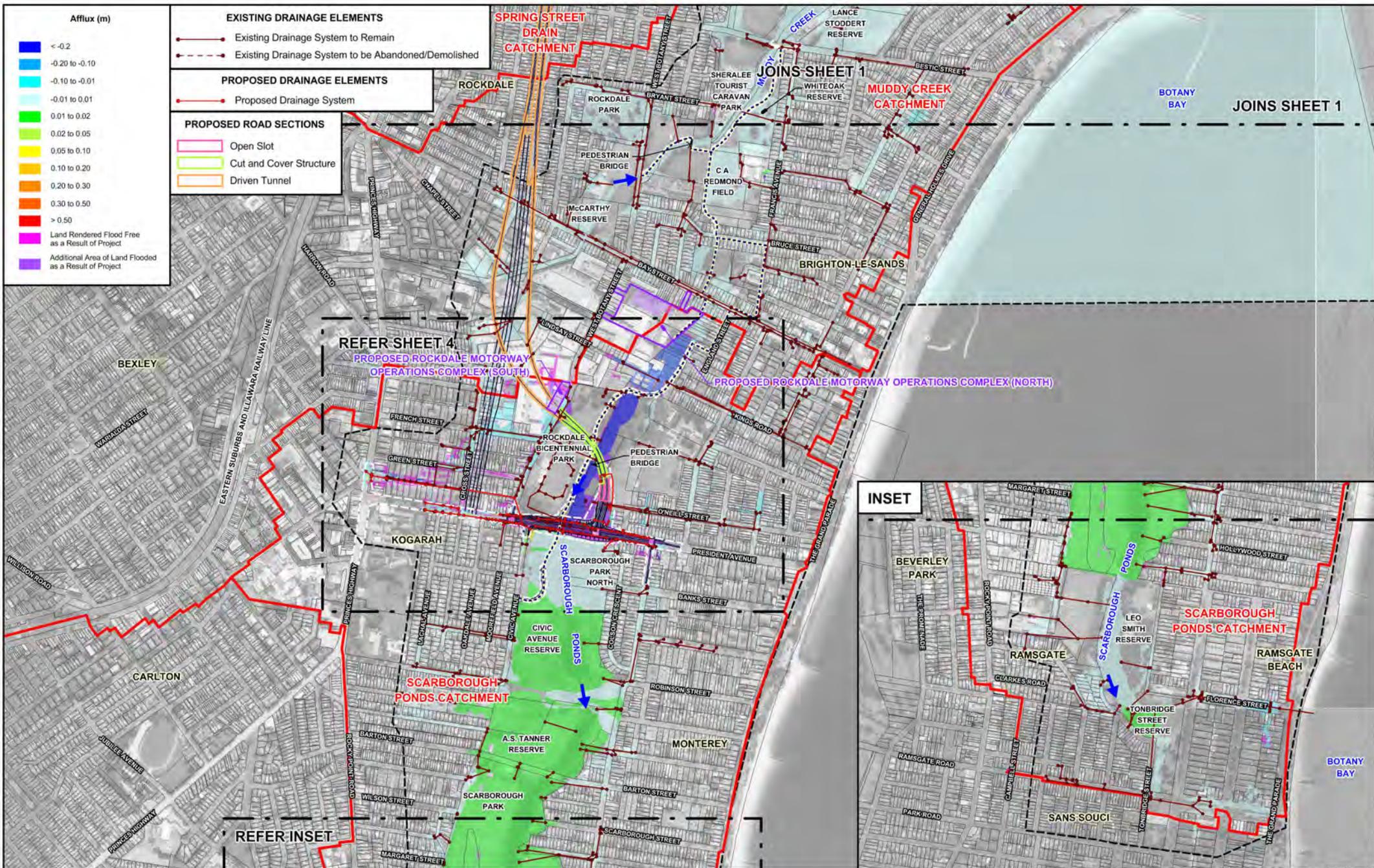
- Driven Tunnel



Note:
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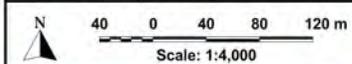
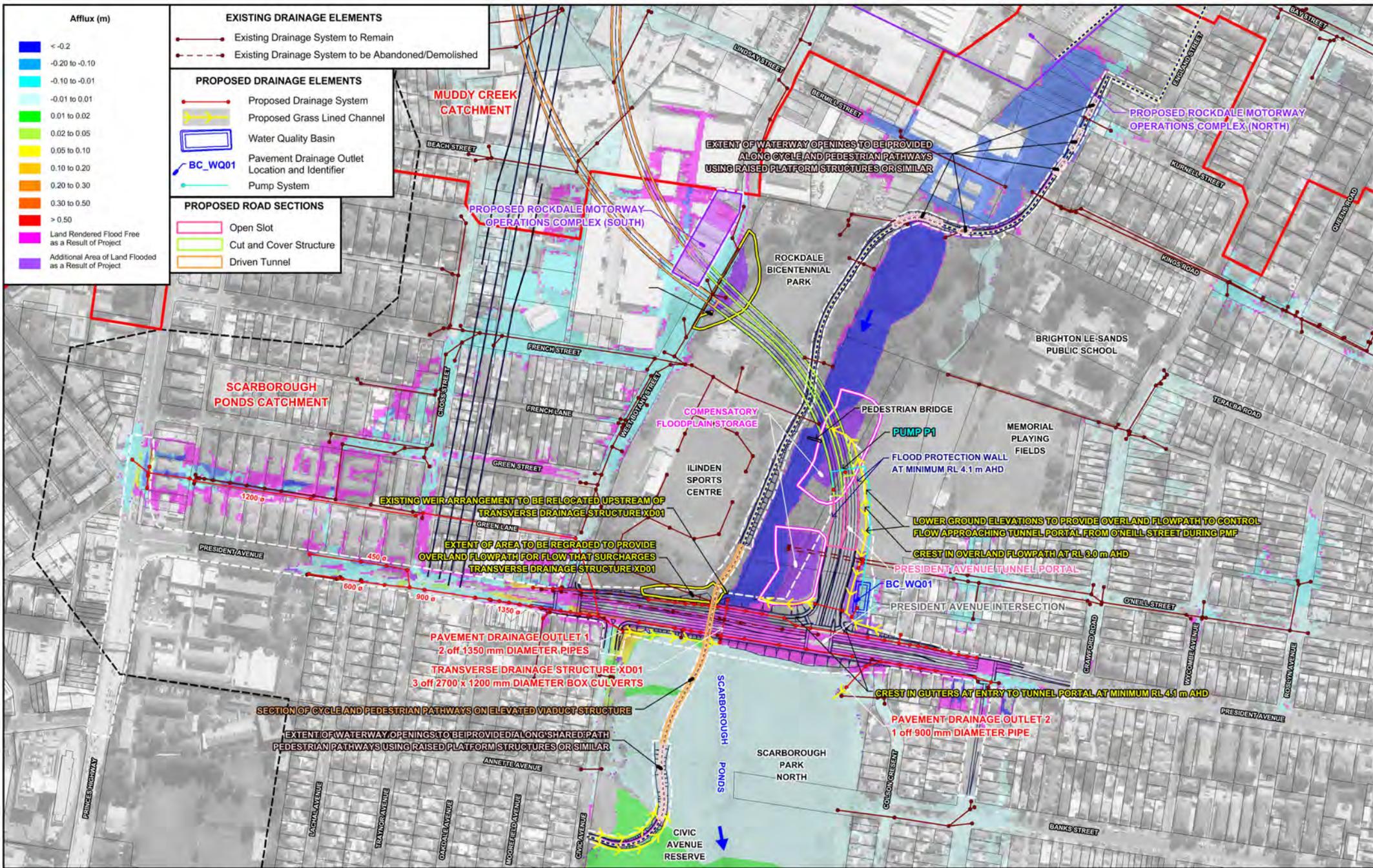
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-12
Sheet 3 of 4

IMPACT OF PROJECT OPERATION ON FLOODING BEHAVIOUR
20% AEP

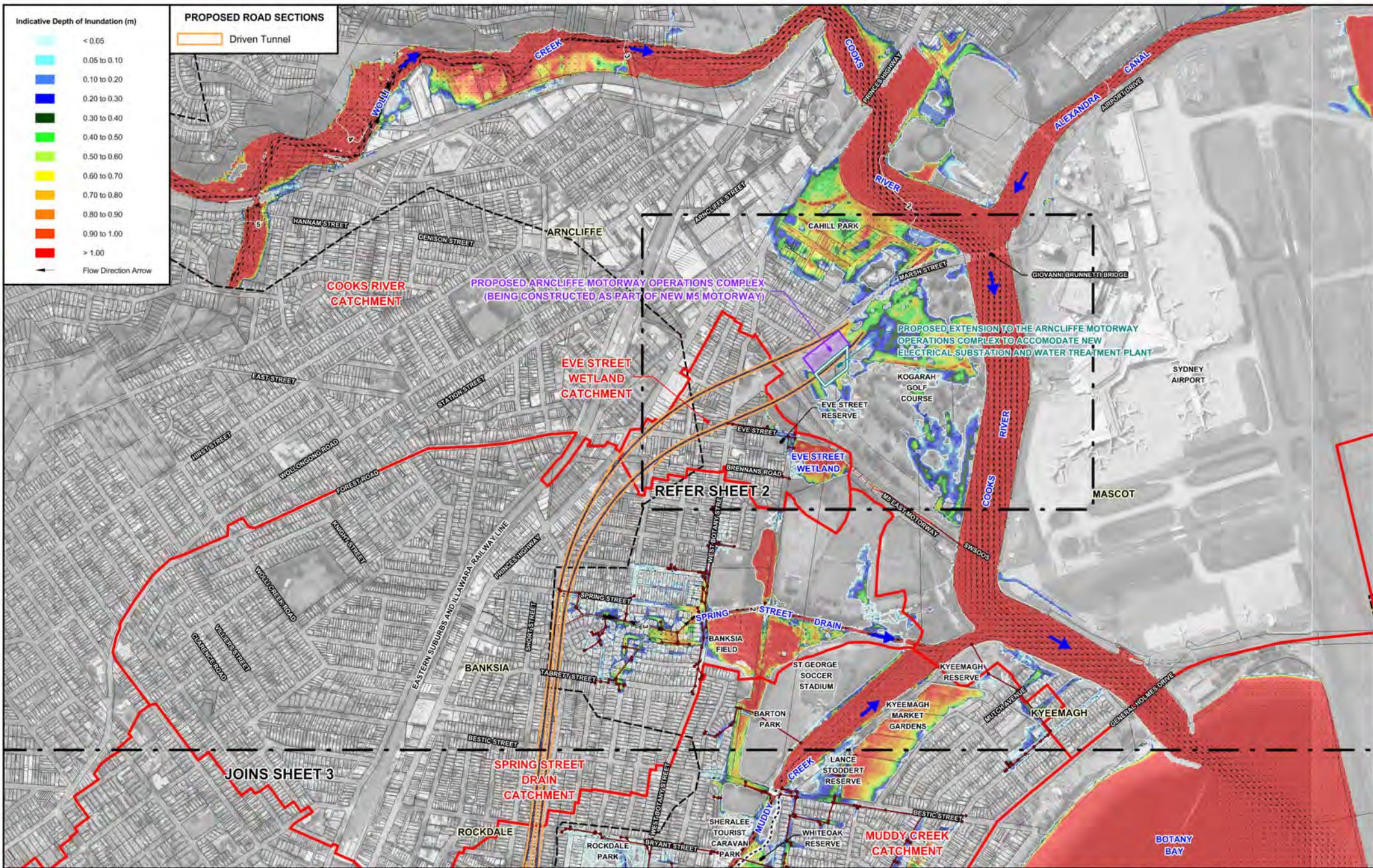


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- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



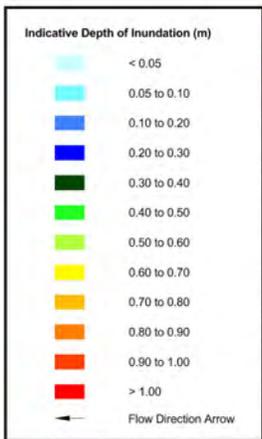
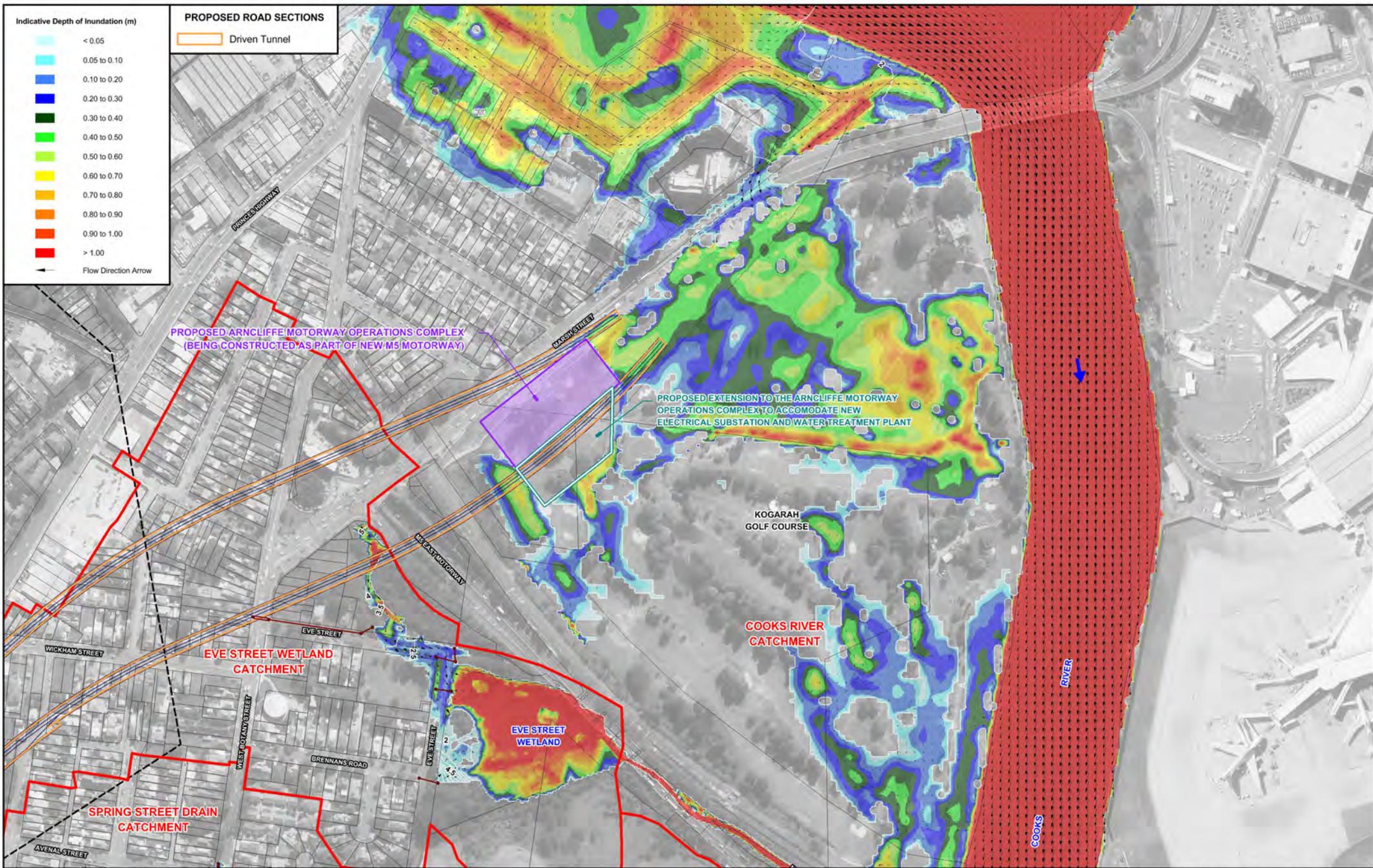
Scale: 1:12,000

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- LEGEND**
- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

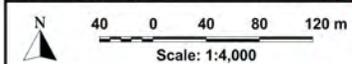
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 5% AEP



PROPOSED ROAD SECTIONS

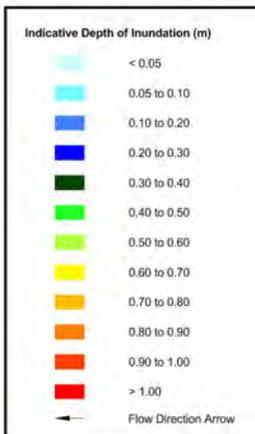
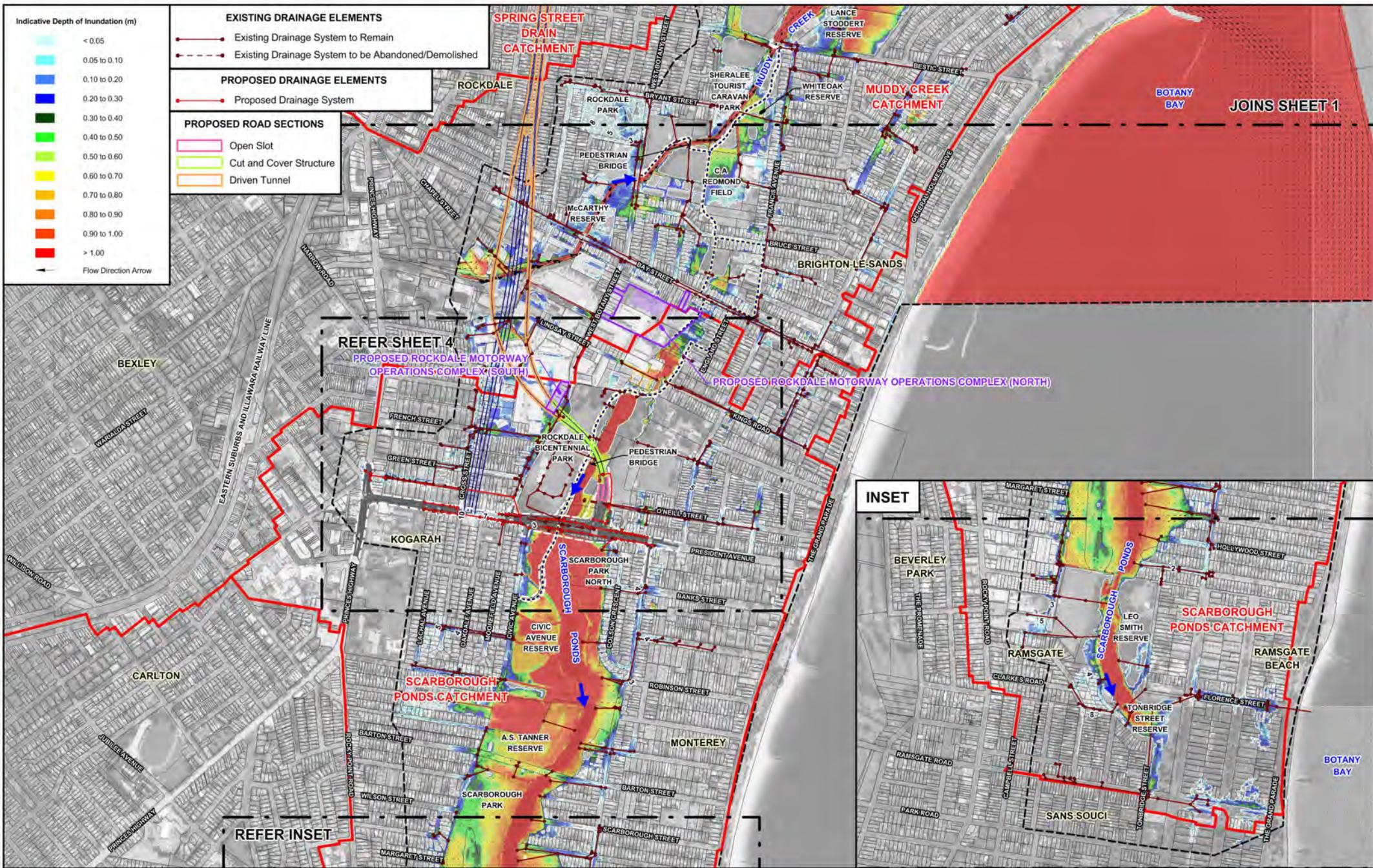
Driven Tunnel



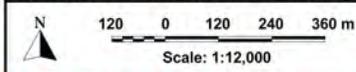
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- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
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 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



- EXISTING DRAINAGE ELEMENTS**
- Existing Drainage System to Remain
 - Existing Drainage System to be Abandoned/Demolished
- PROPOSED DRAINAGE ELEMENTS**
- Proposed Drainage System
- PROPOSED ROAD SECTIONS**
- Open Slot
 - Cut and Cover Structure
 - Driven Tunnel



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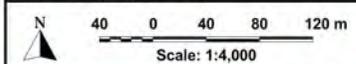
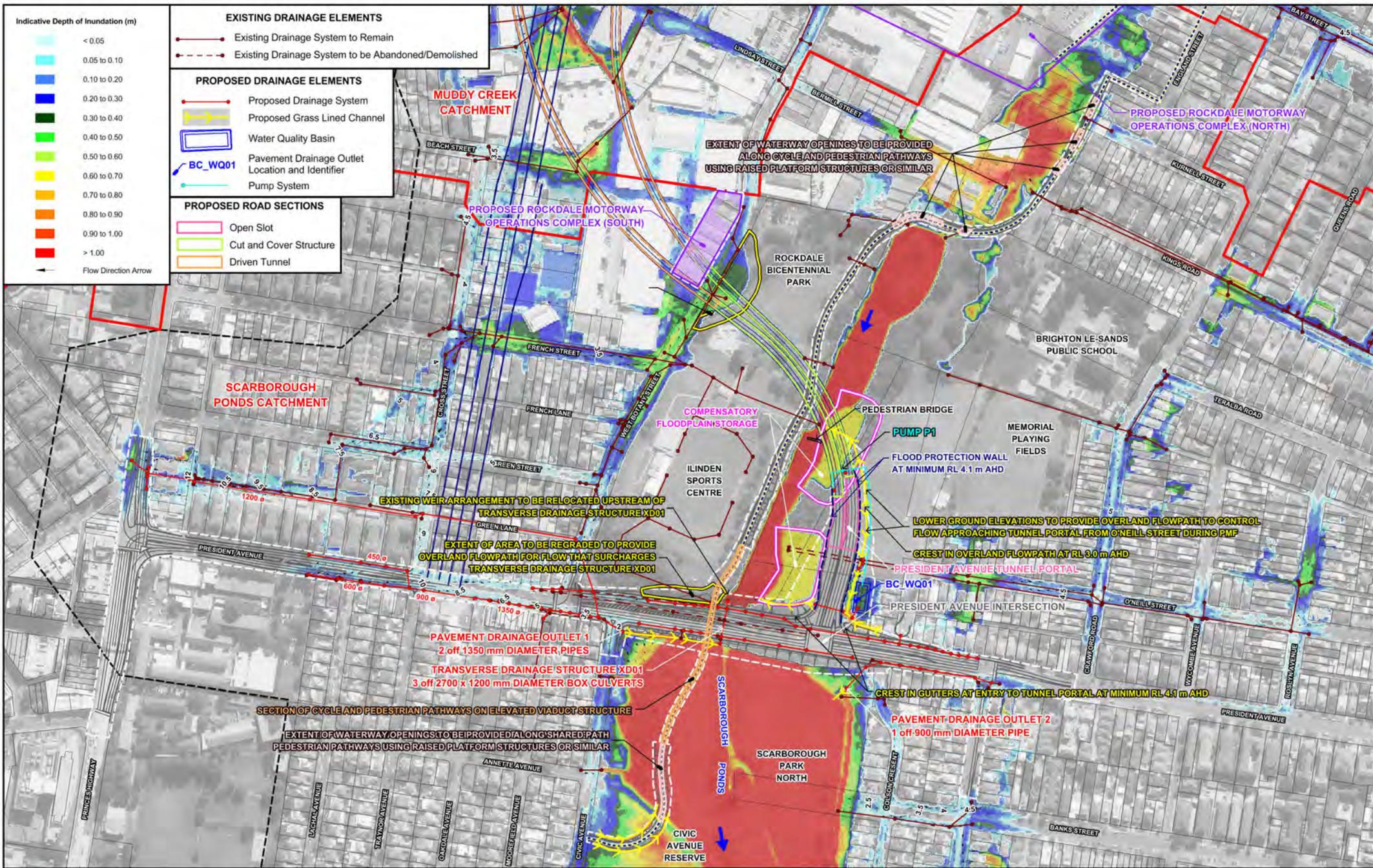
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- Proposed Surface Road Works
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 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-13
 Sheet 3 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 5% AEP



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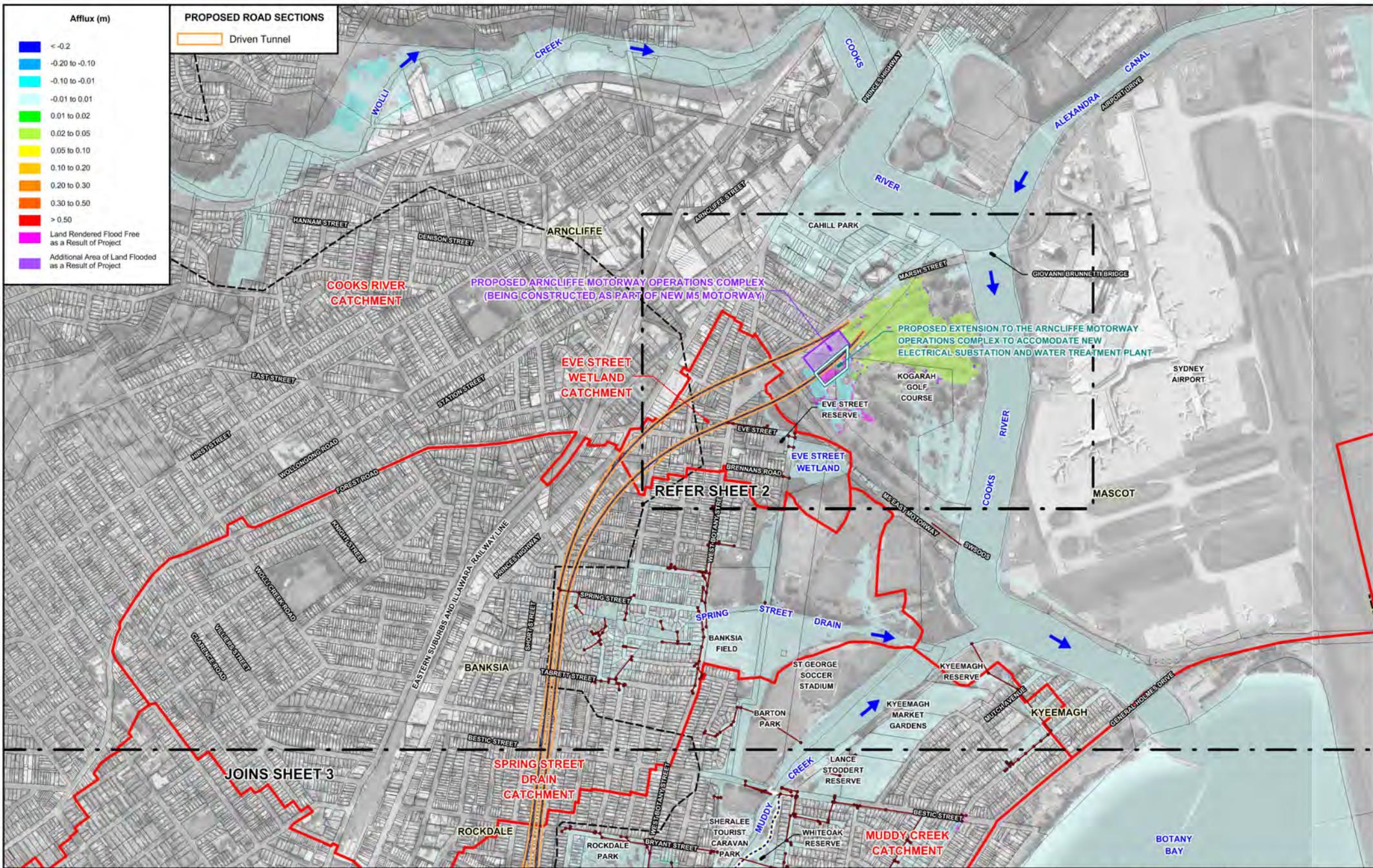
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

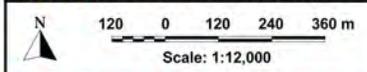
Figure C-13
 Sheet 4 of 4

**PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
 OPERATIONAL CONDITIONS - 5% AEP**

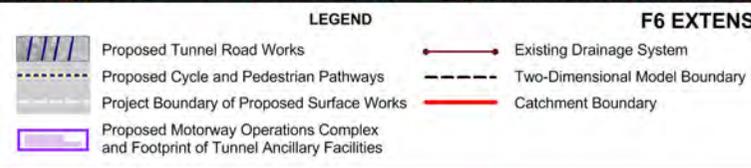


PROPOSED ROAD SECTIONS

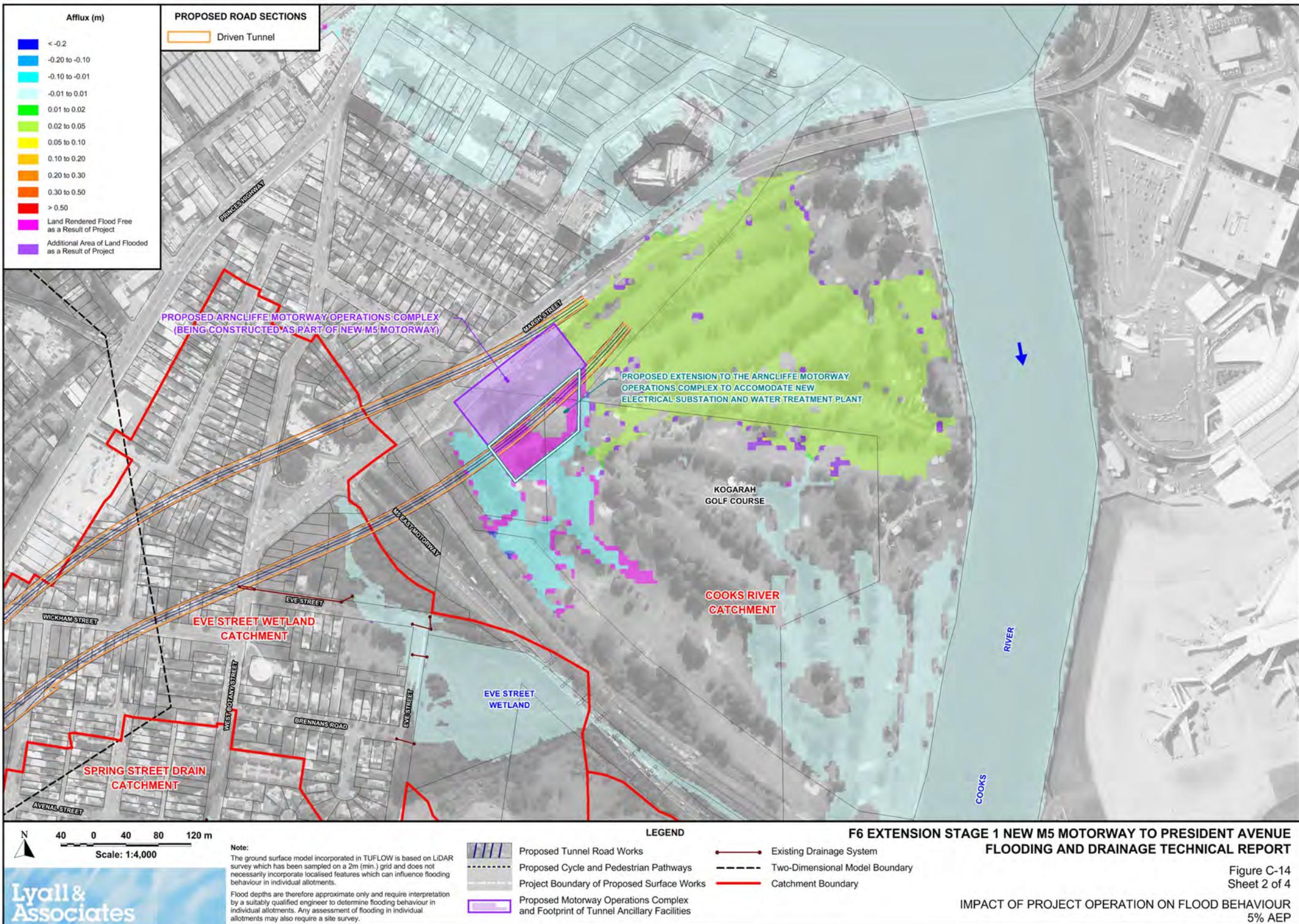
- Driven Tunnel

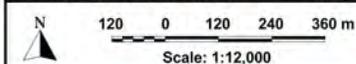
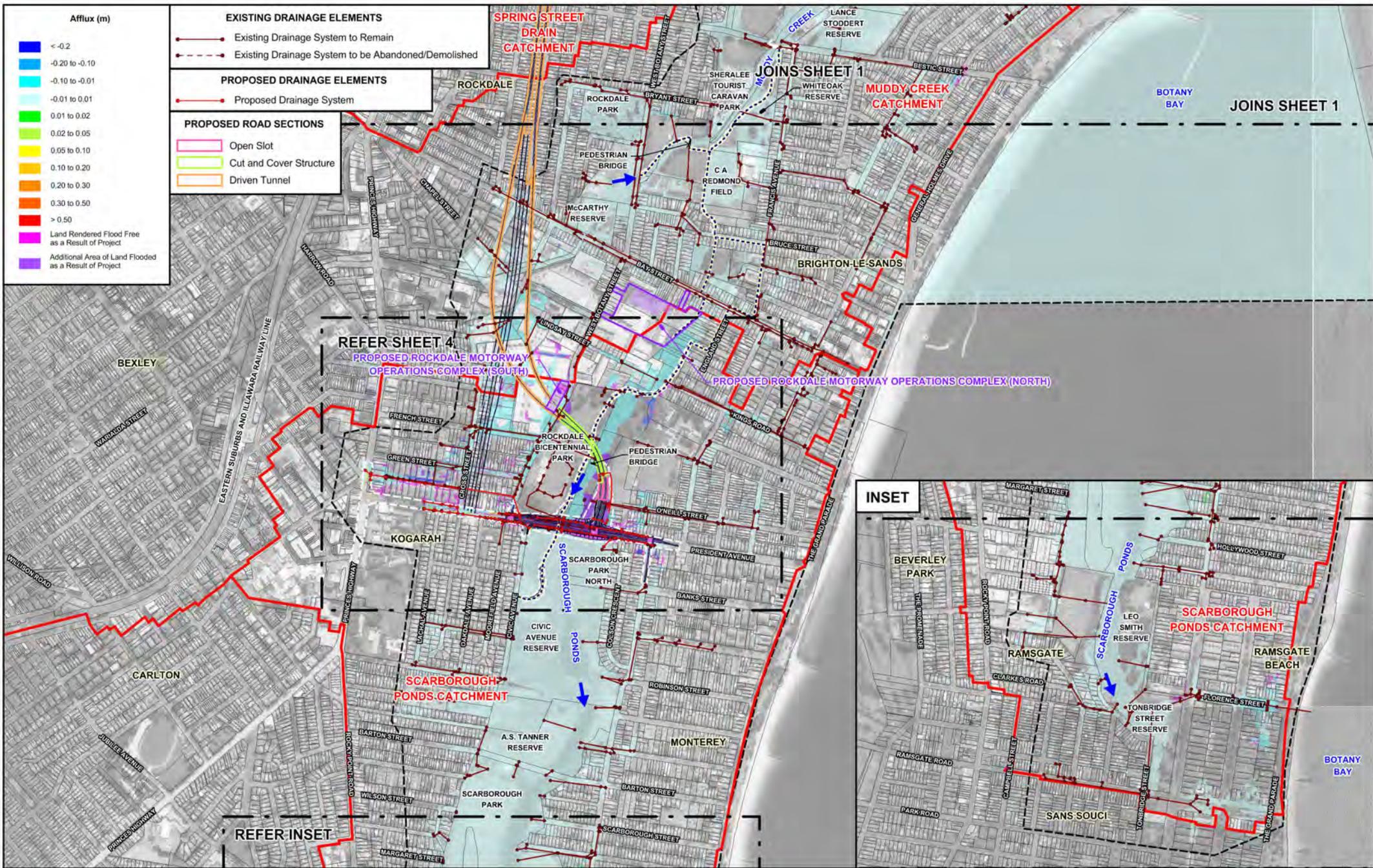


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**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**





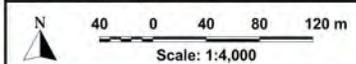
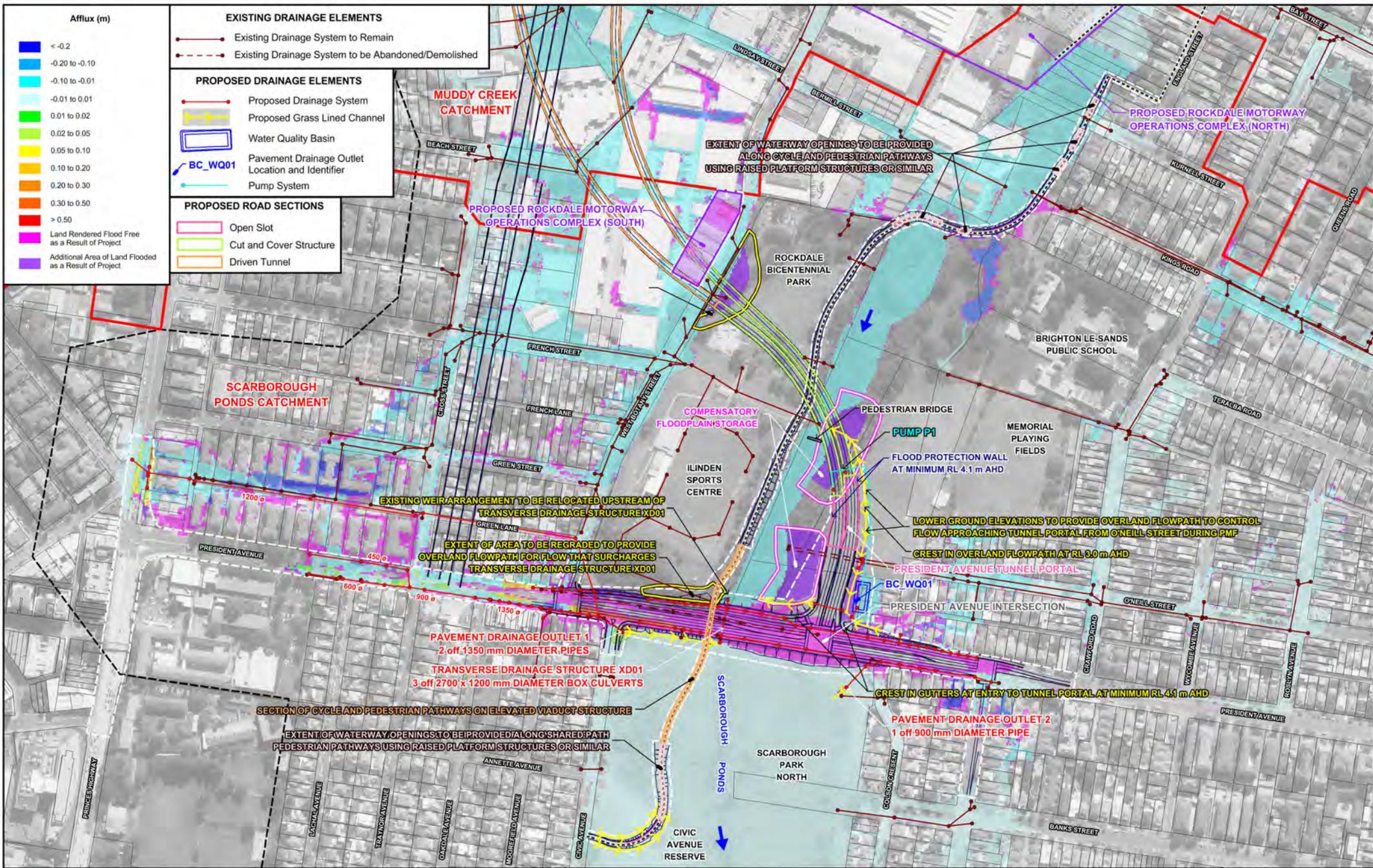
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 - Project Boundary of Proposed Surface Works
 - Two-Dimensional Model Boundary
 - Catchment Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-14
 Sheet 3 of 4

IMPACT OF PROJECT OPERATION ON FLOOD BEHAVIOUR
 5% AEP



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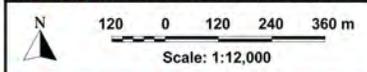
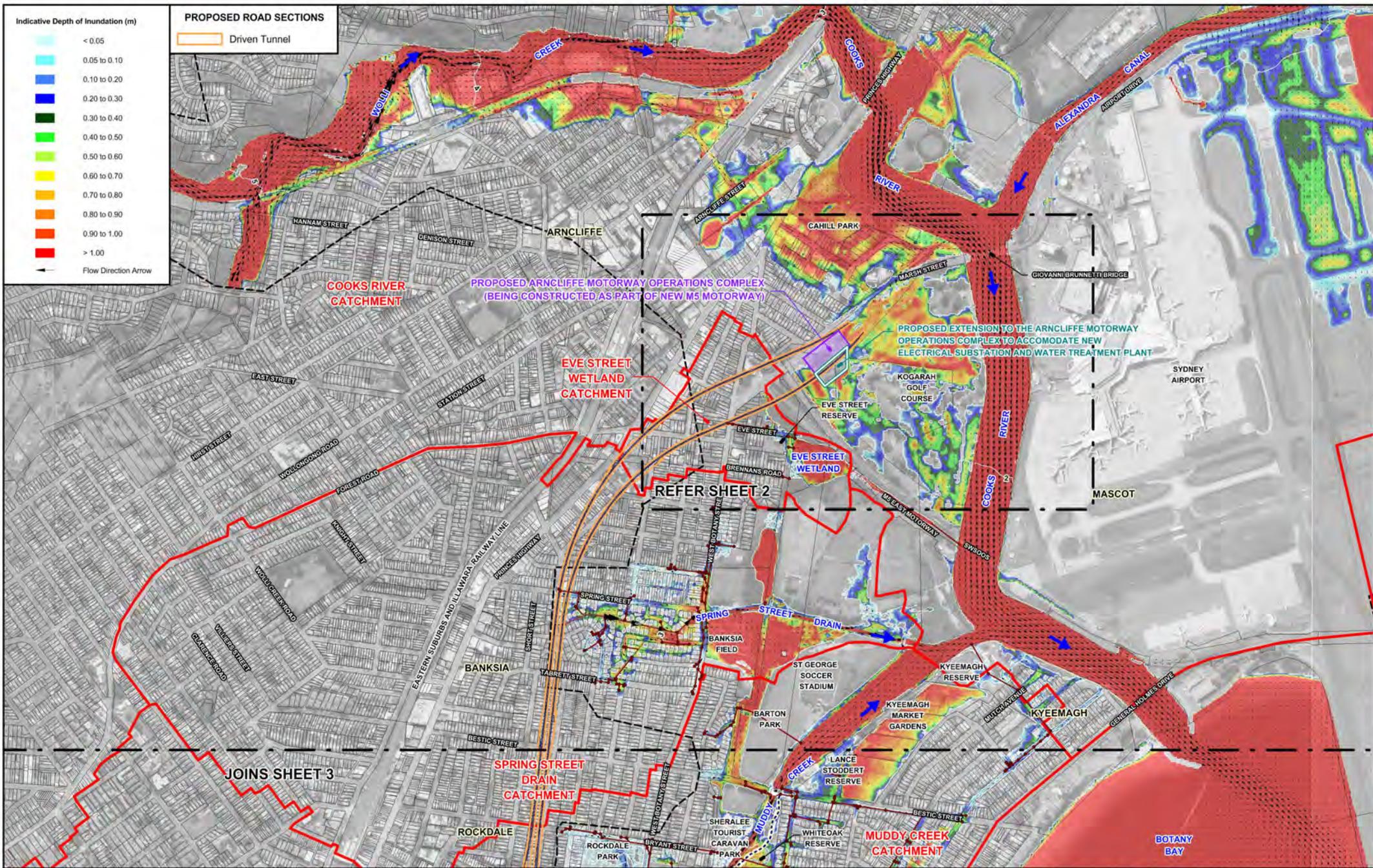
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-14
 Sheet 4 of 4

IMPACT OF PROJECT OPERATION ON FLOOD BEHAVIOUR
 5% AEP



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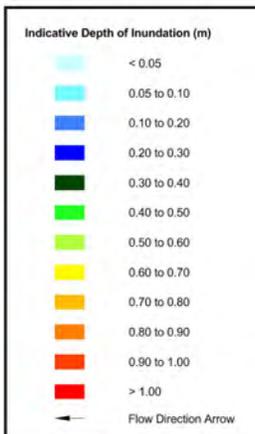
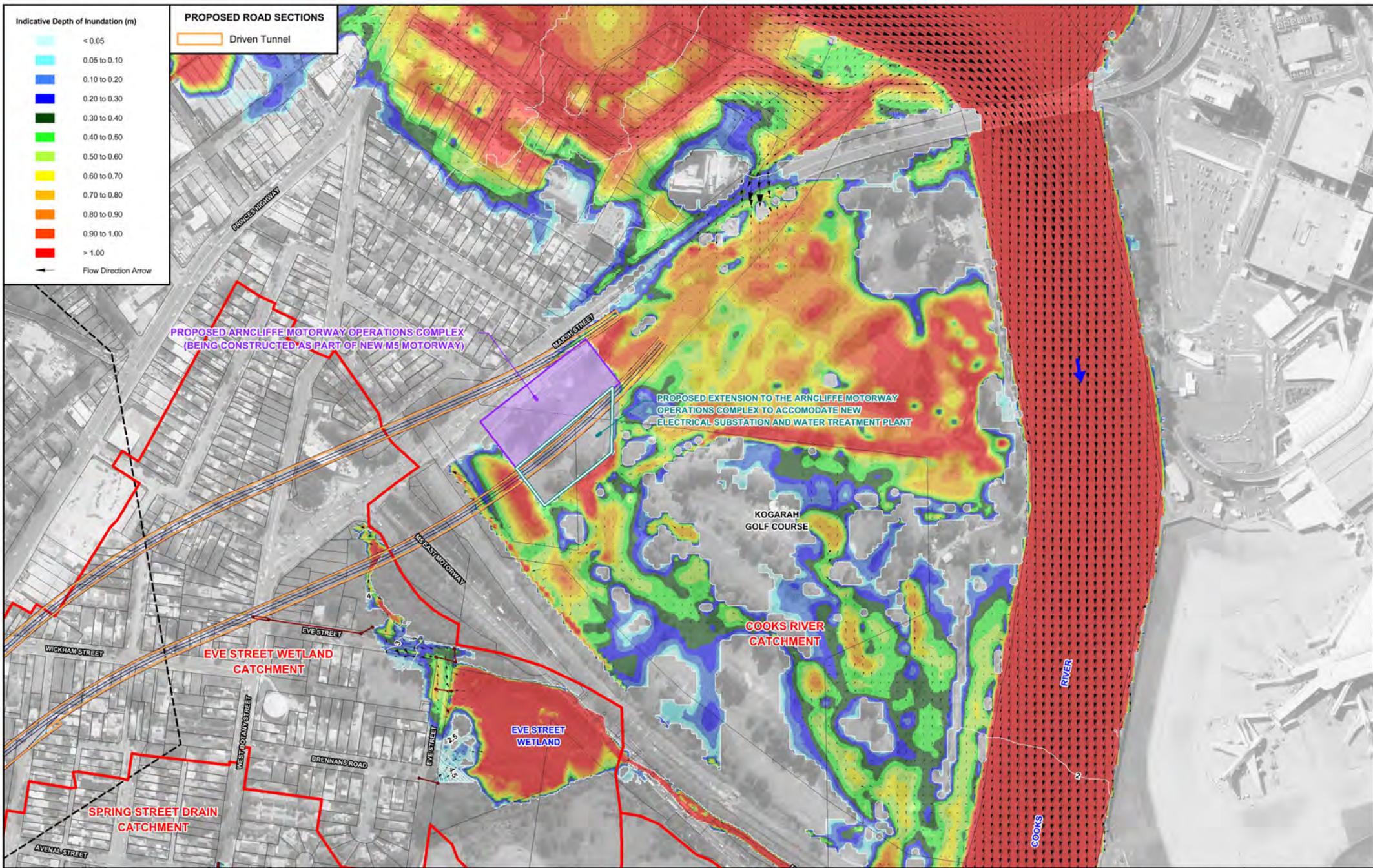
- LEGEND**
- Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary

- Existing Drainage System
- Two-Dimensional Model Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 0.5% AEP

Figure C-15
 Sheet 1 of 4



PROPOSED ROAD SECTIONS

Driven Tunnel

PROPOSED ARNCLIFFE MOTORWAY OPERATIONS COMPLEX
(BEING CONSTRUCTED AS PART OF NEW M5 MOTORWAY)

PROPOSED EXTENSION TO THE ARNCLIFFE MOTORWAY
OPERATIONS COMPLEX TO ACCOMMODATE NEW
ELECTRICAL SUBSTATION AND WATER TREATMENT PLANT

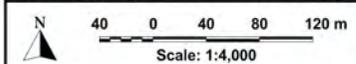
KOGARAH
GOLF COURSE

COOKS RIVER
CATCHMENT

EVE STREET WETLAND
CATCHMENT

EVE STREET
WETLAND

SPRING STREET DRAIN
CATCHMENT



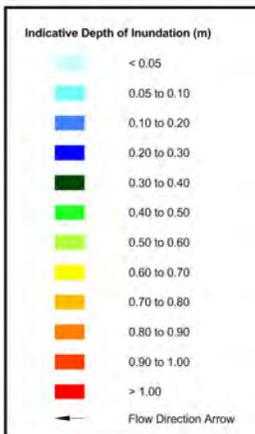
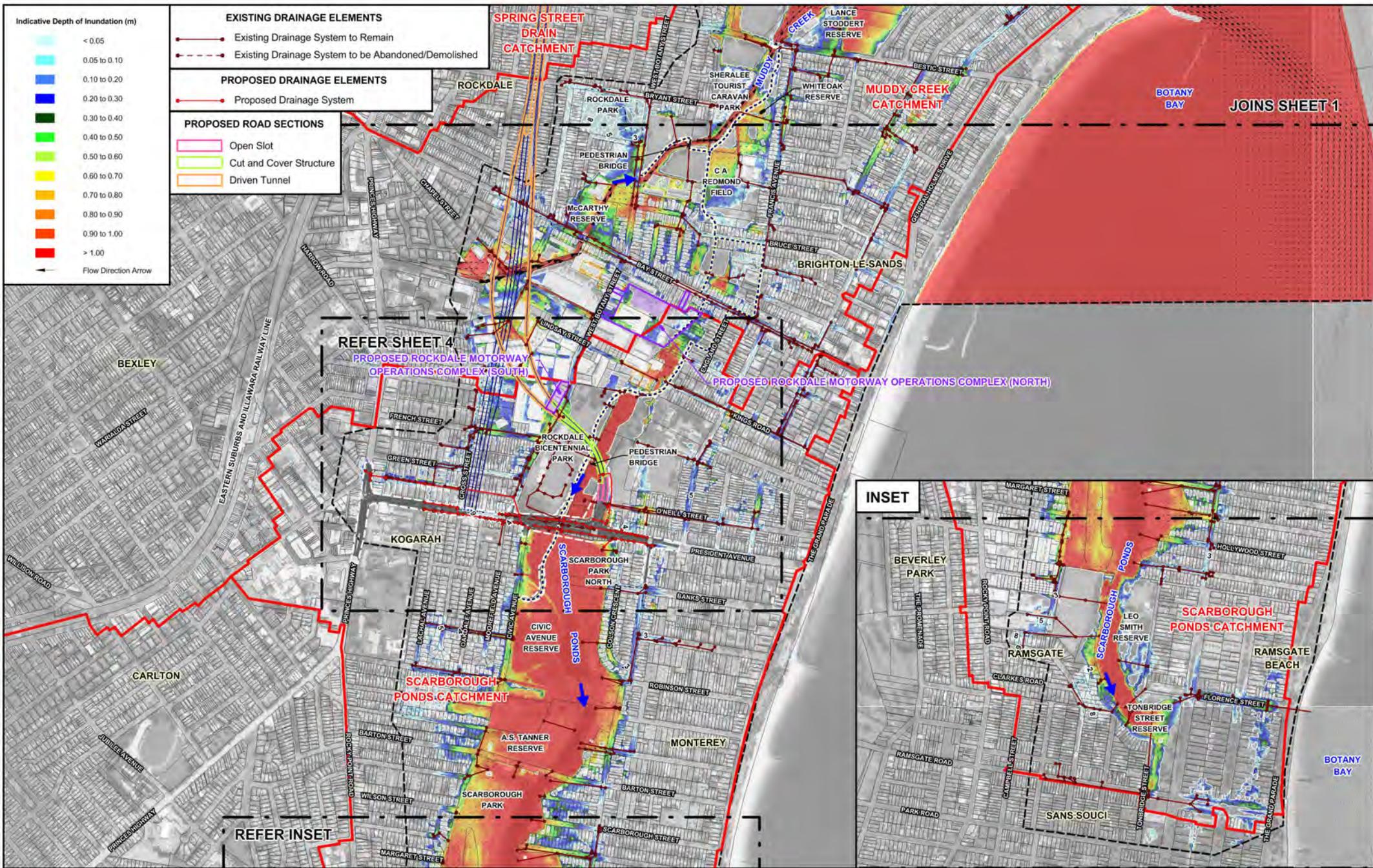
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 - Water Surface Elevation Contours (m AHD)
 - Catchment Boundary
 - Existing Drainage System
 - Two-Dimensional Model Boundary
 - Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

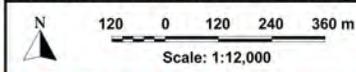
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-15
Sheet 2 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
OPERATIONAL CONDITIONS - 0.5% AEP



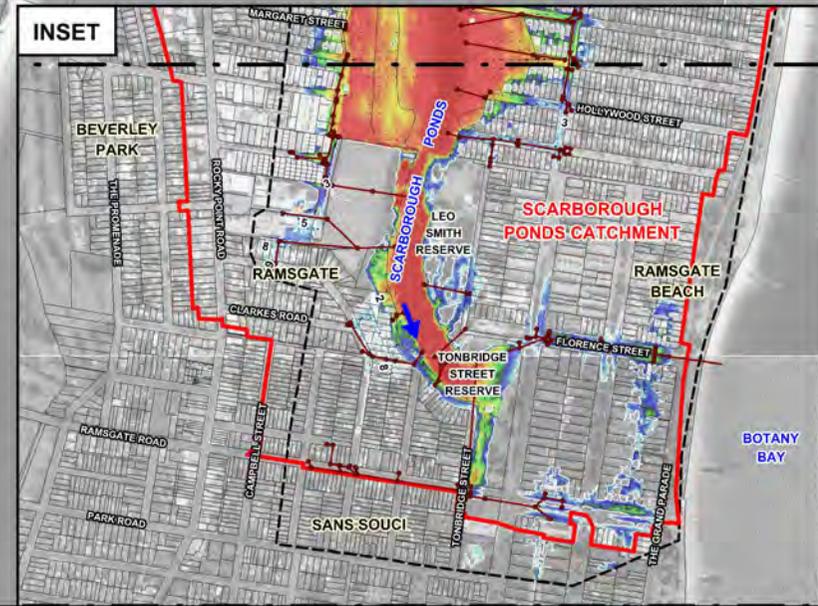
- EXISTING DRAINAGE ELEMENTS**
- Existing Drainage System to Remain
 - Existing Drainage System to be Abandoned/Demolished
- PROPOSED DRAINAGE ELEMENTS**
- Proposed Drainage System
- PROPOSED ROAD SECTIONS**
- Open Slot
 - Cut and Cover Structure
 - Driven Tunnel

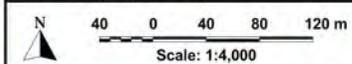
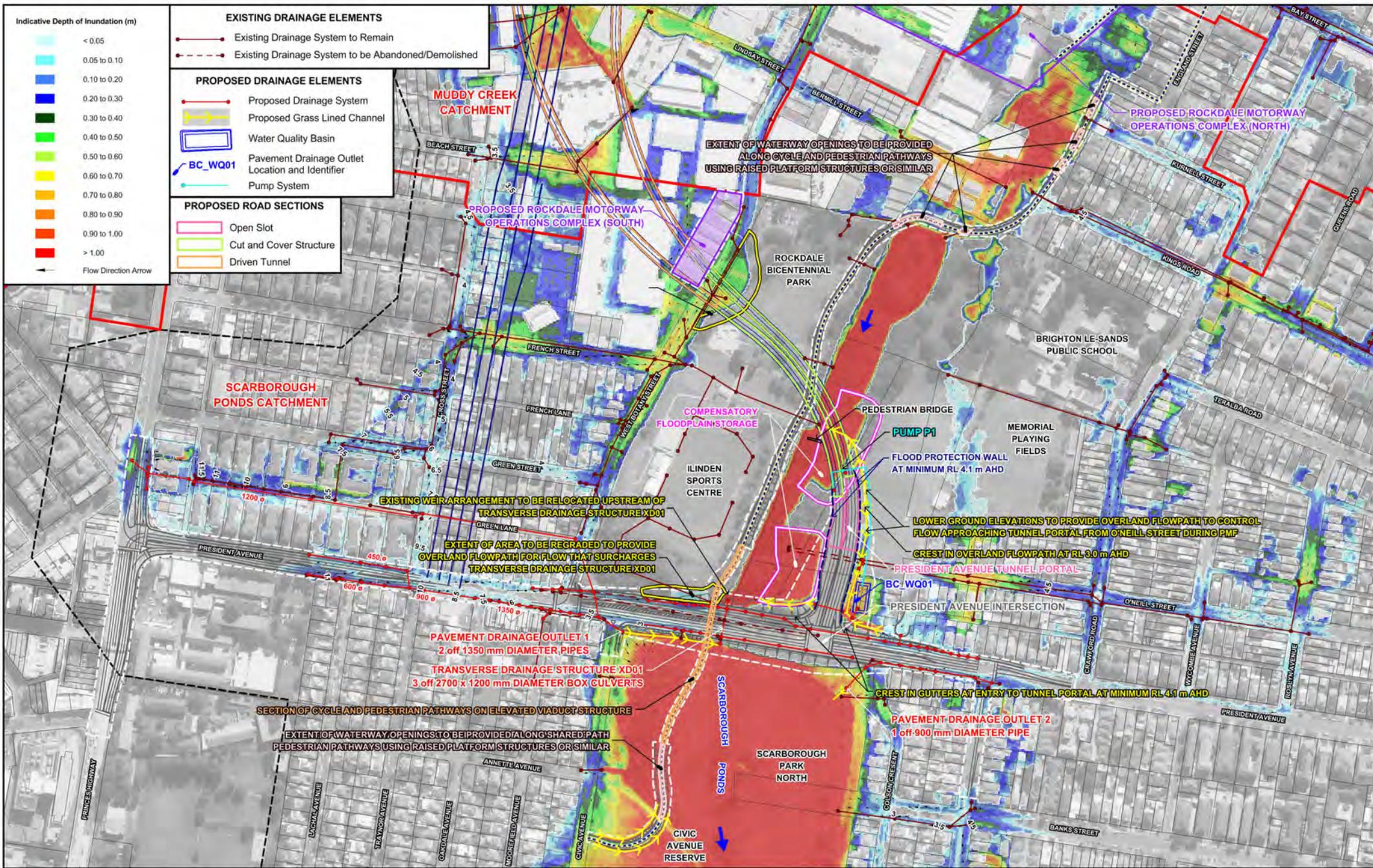


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 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works
 - Water Surface Elevation Contours (m AHD)

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities





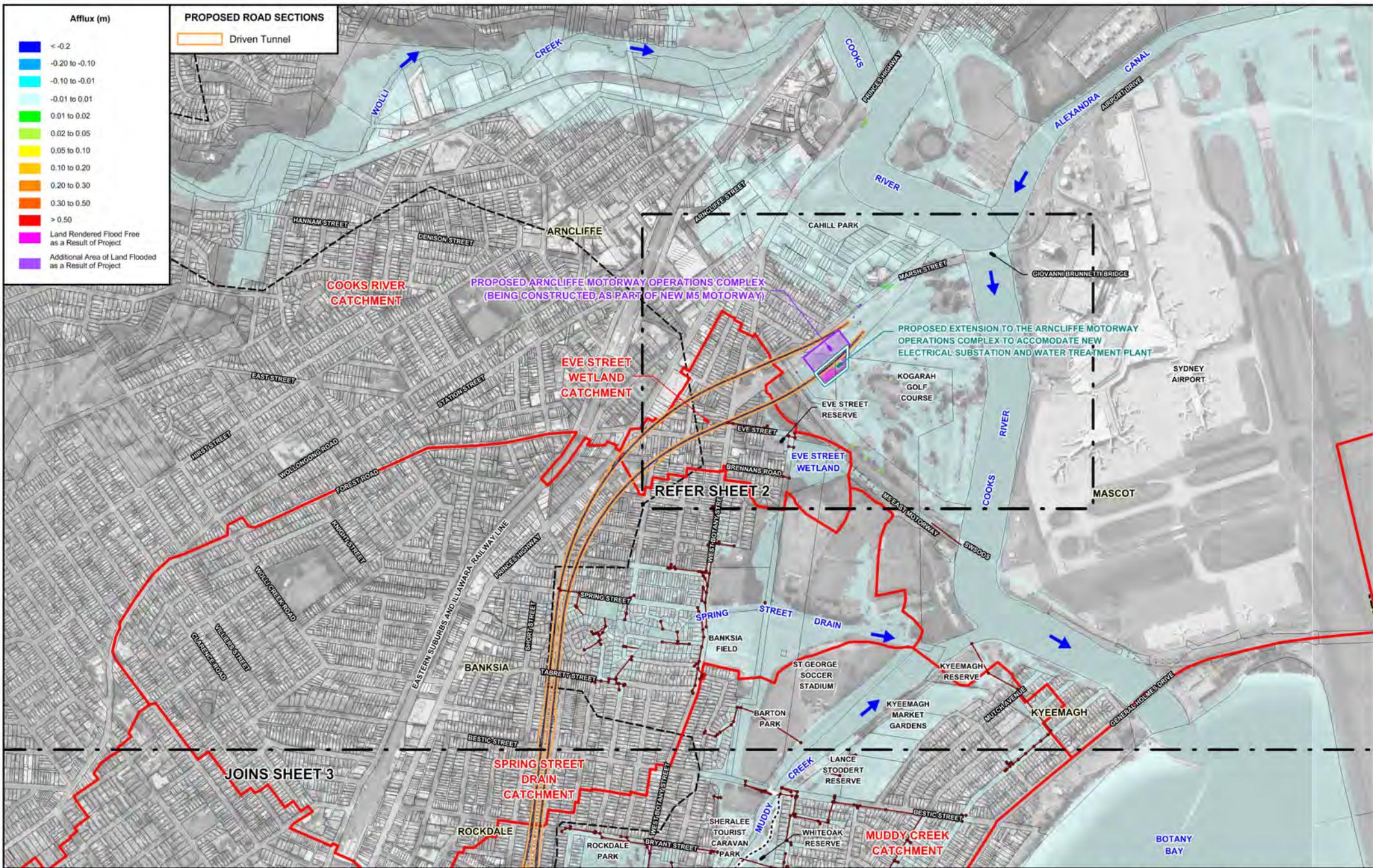
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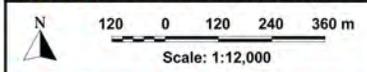
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 0.5% AEP

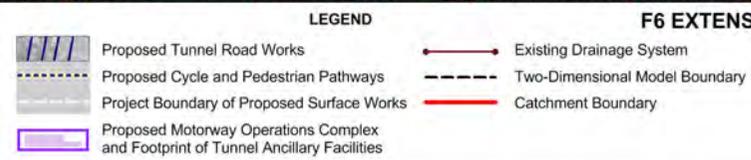


PROPOSED ROAD SECTIONS

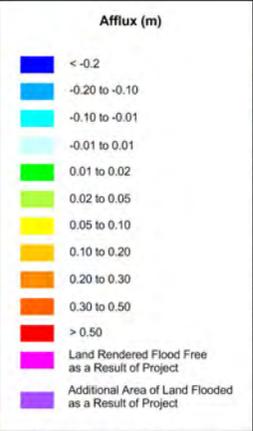
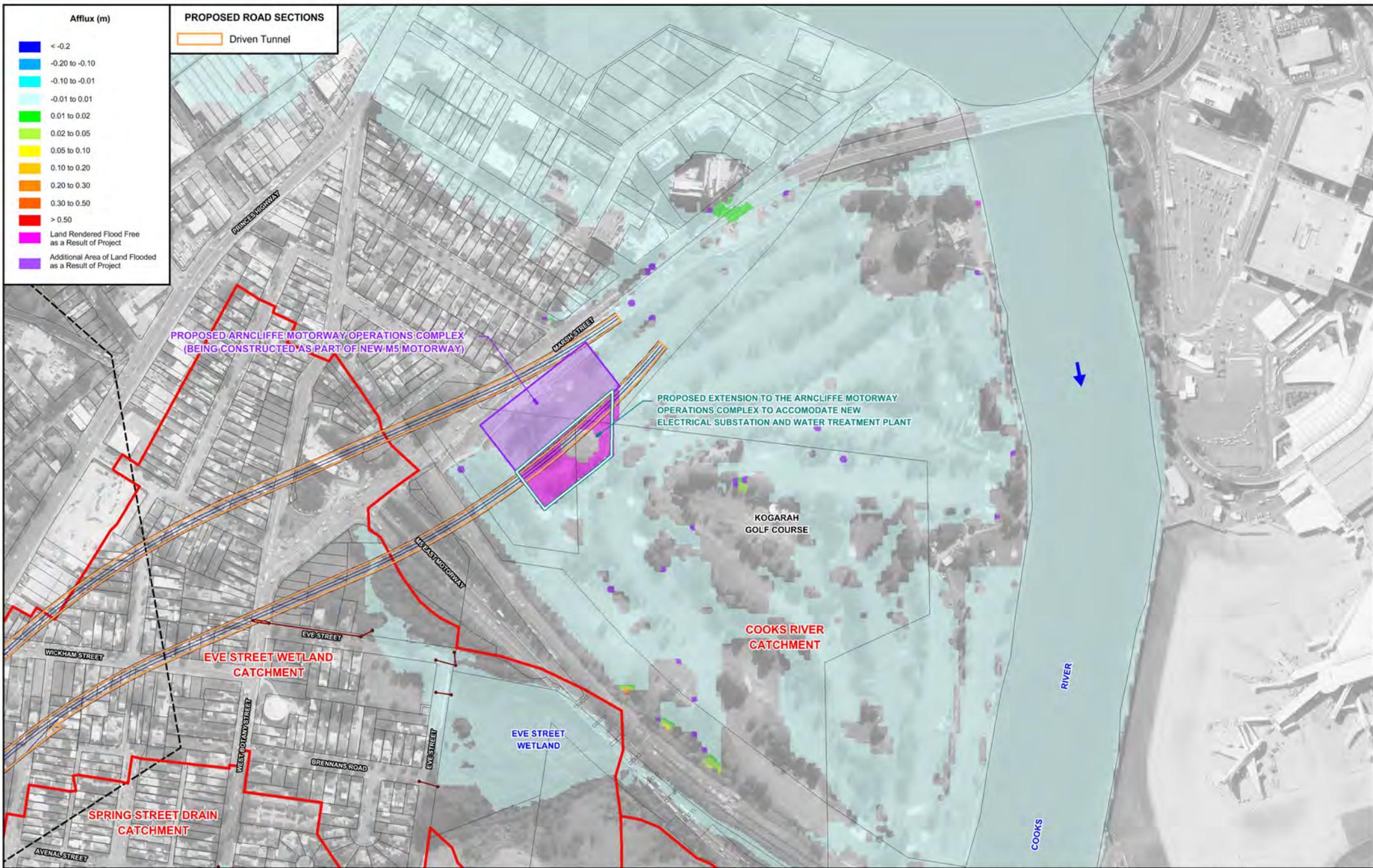
- Driven Tunnel



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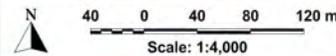


**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

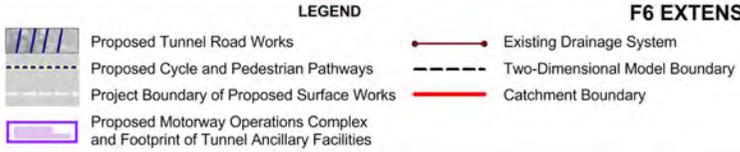


PROPOSED ROAD SECTIONS

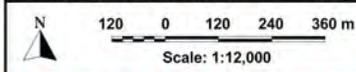
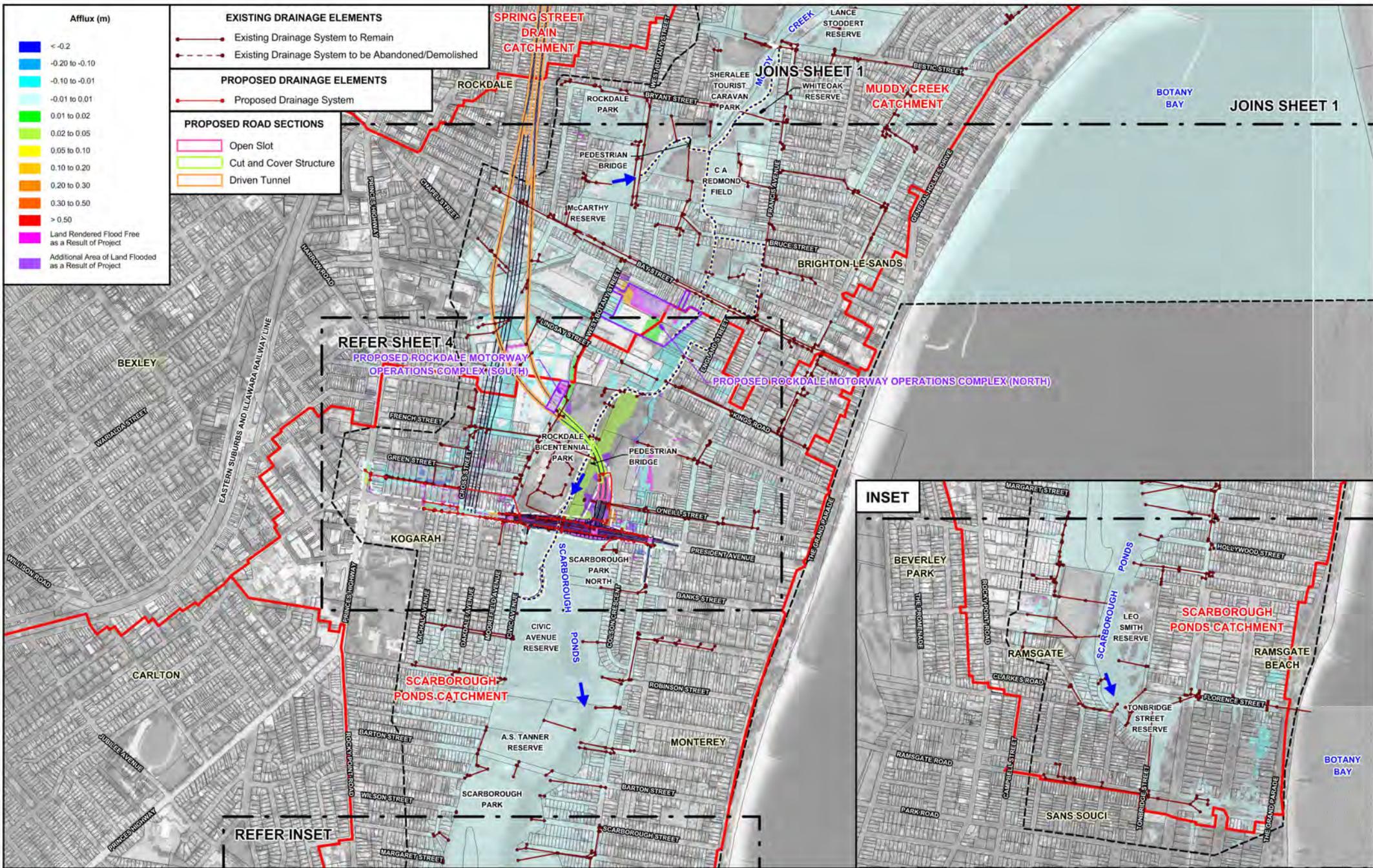
Driven Tunnel



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 FLOODING AND DRAINAGE TECHNICAL REPORT**



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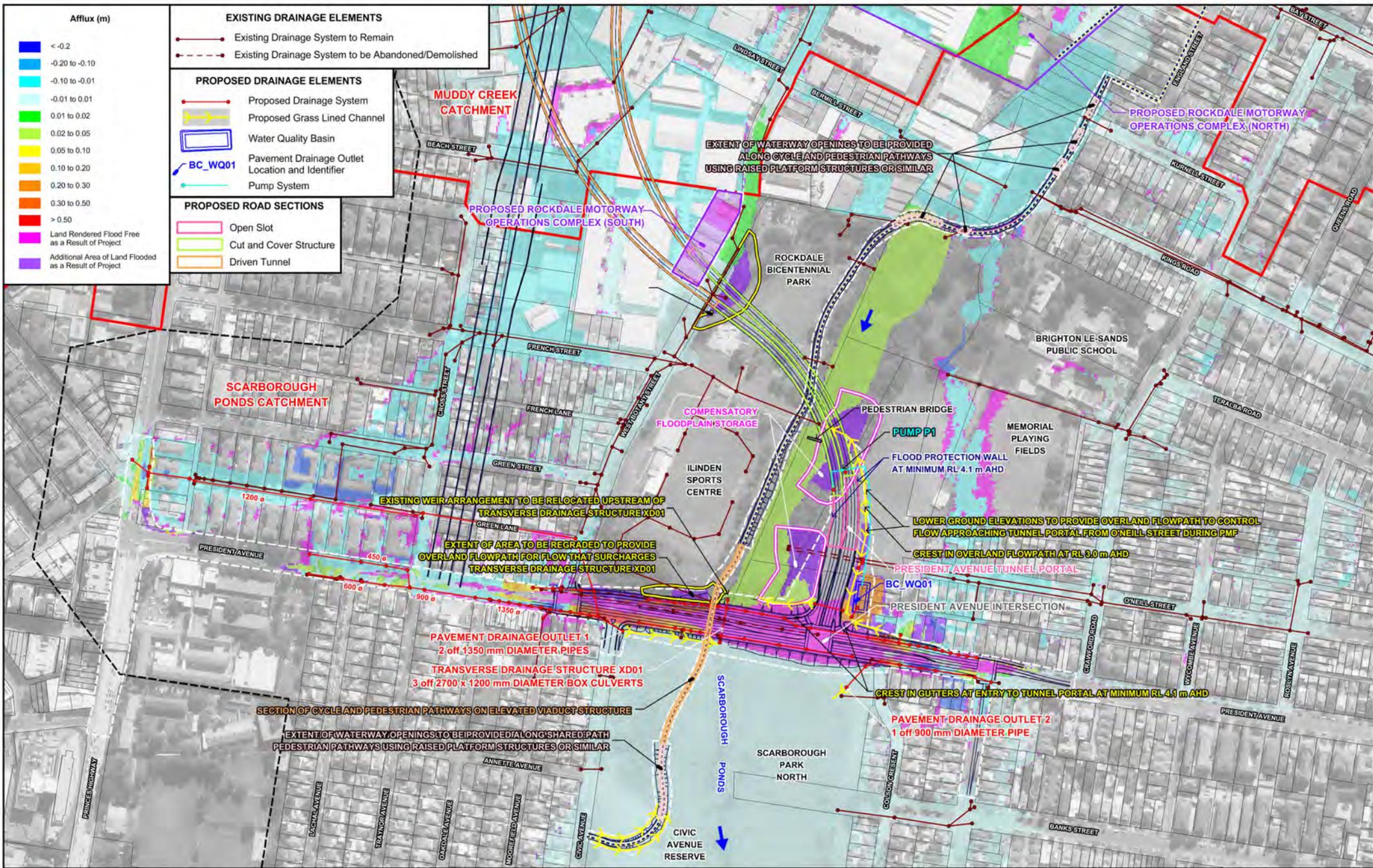
- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

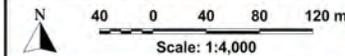
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-16
 Sheet 3 of 4

IMPACT OF PROJECT OPERATION ON FLOOD BEHAVIOUR
 0.5% AEP



- EXISTING DRAINAGE ELEMENTS**
- Existing Drainage System to Remain
 - Existing Drainage System to be Abandoned/Demolished
- PROPOSED DRAINAGE ELEMENTS**
- Proposed Drainage System
 - Proposed Grass Lined Channel
 - Water Quality Basin
 - Pavement Drainage Outlet Location and Identifier
 - Pump System
- PROPOSED ROAD SECTIONS**
- Open Slot
 - Cut and Cover Structure
 - Driven Tunnel



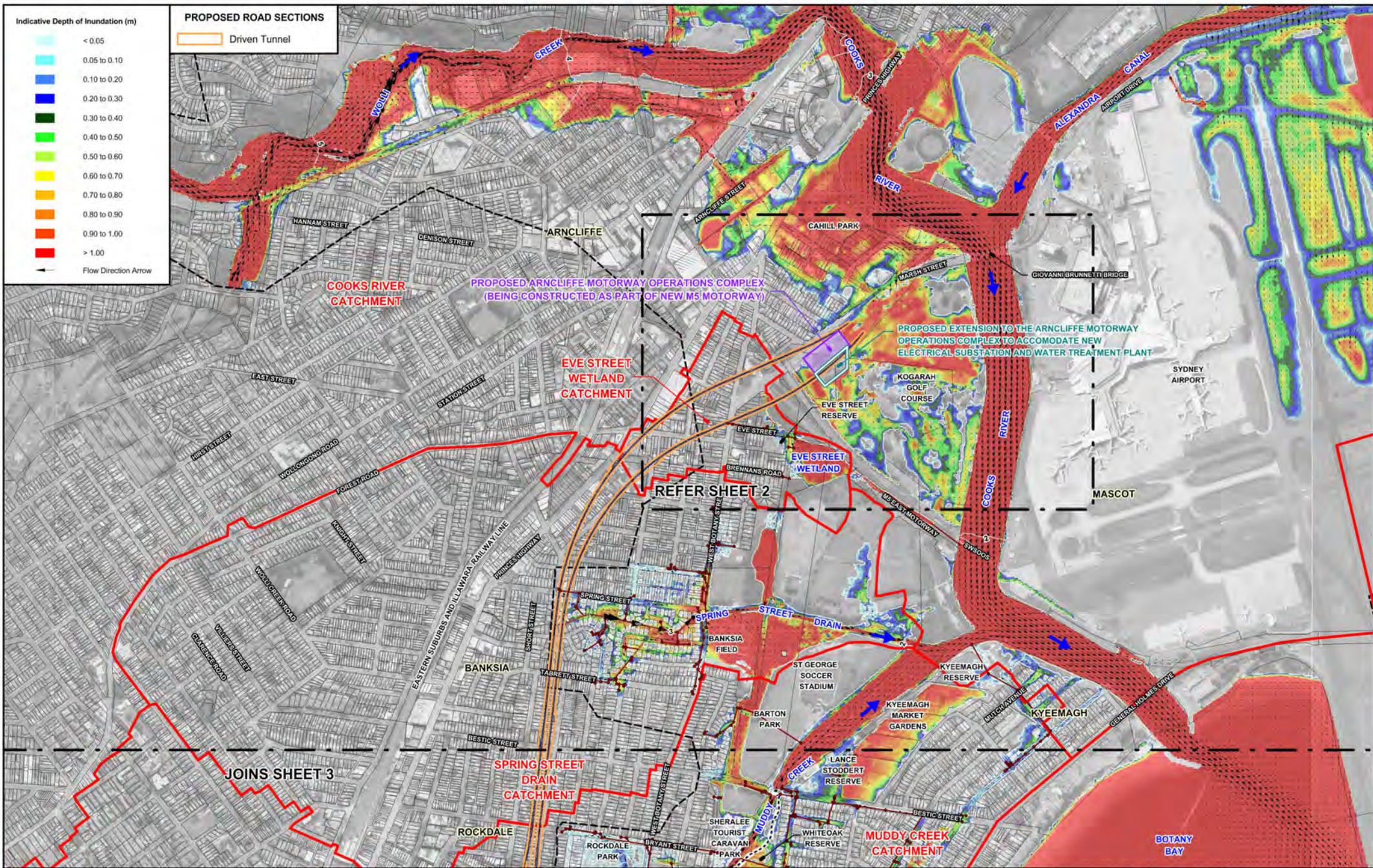
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- LEGEND**
- Proposed Surface Road Works
 - Proposed Tunnel Road Works
 - Proposed Cycle and Pedestrian Pathways
 - Project Boundary of Proposed Surface Works

- Two-Dimensional Model Boundary
- Catchment Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-16
 Sheet 4 of 4



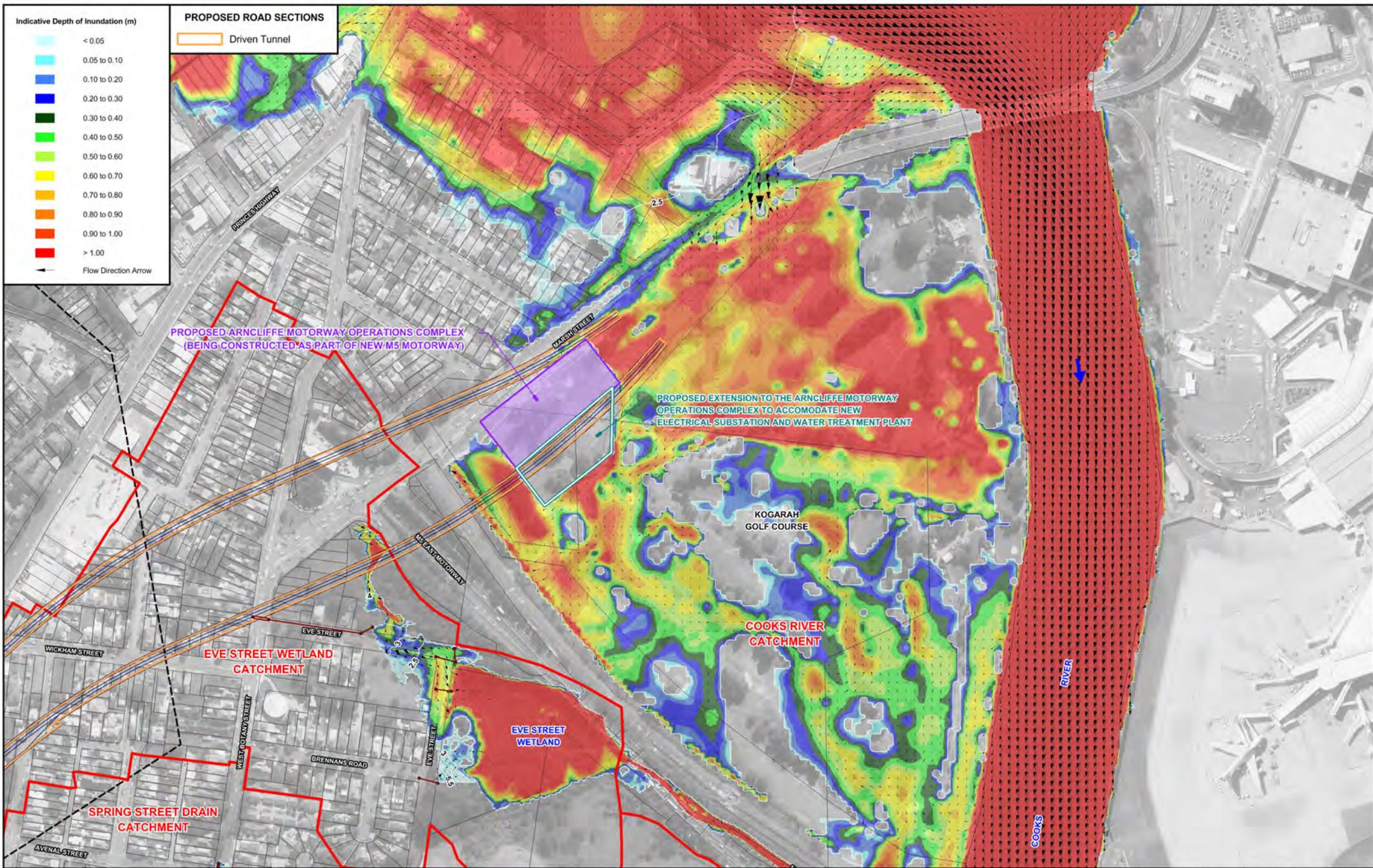
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LEGEND

- Proposed Tunnel Road Works
- Proposed Cycle and Pedestrian Pathways
- Project Boundary of Proposed Surface Works
- Water Surface Elevation Contours (m AHD)
- Catchment Boundary
- Existing Drainage System
- Two-Dimensional Model Boundary
- Proposed Motorway Operations Complex and Footprint of Tunnel Ancillary Facilities

**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**



PROPOSED ROAD SECTIONS

Driven Tunnel

- Indicative Depth of Inundation (m)**
- <math>< 0.05</math>
 - 0.05 to 0.10
 - 0.10 to 0.20
 - 0.20 to 0.30
 - 0.30 to 0.40
 - 0.40 to 0.50
 - 0.50 to 0.60
 - 0.60 to 0.70
 - 0.70 to 0.80
 - 0.80 to 0.90
 - 0.90 to 1.00
 - > 1.00
- Flow Direction Arrow

PROPOSED ARNCLIFFE MOTORWAY OPERATIONS COMPLEX
(BEING CONSTRUCTED AS PART OF NEW M5 MOTORWAY)

PROPOSED EXTENSION TO THE ARNCLIFFE MOTORWAY
OPERATIONS COMPLEX TO ACCOMMODATE NEW
ELECTRICAL SUBSTATION AND WATER TREATMENT PLANT

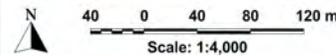
KOGARAH
GOLF COURSE

COOKS RIVER
CATCHMENT

EVE STREET WETLAND
CATCHMENT

EVE STREET
WETLAND

SPRING STREET DRAIN
CATCHMENT



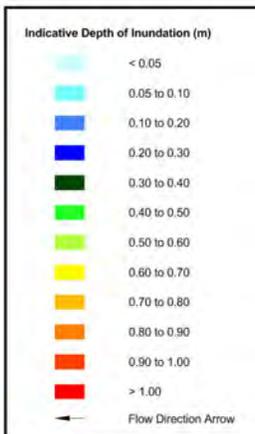
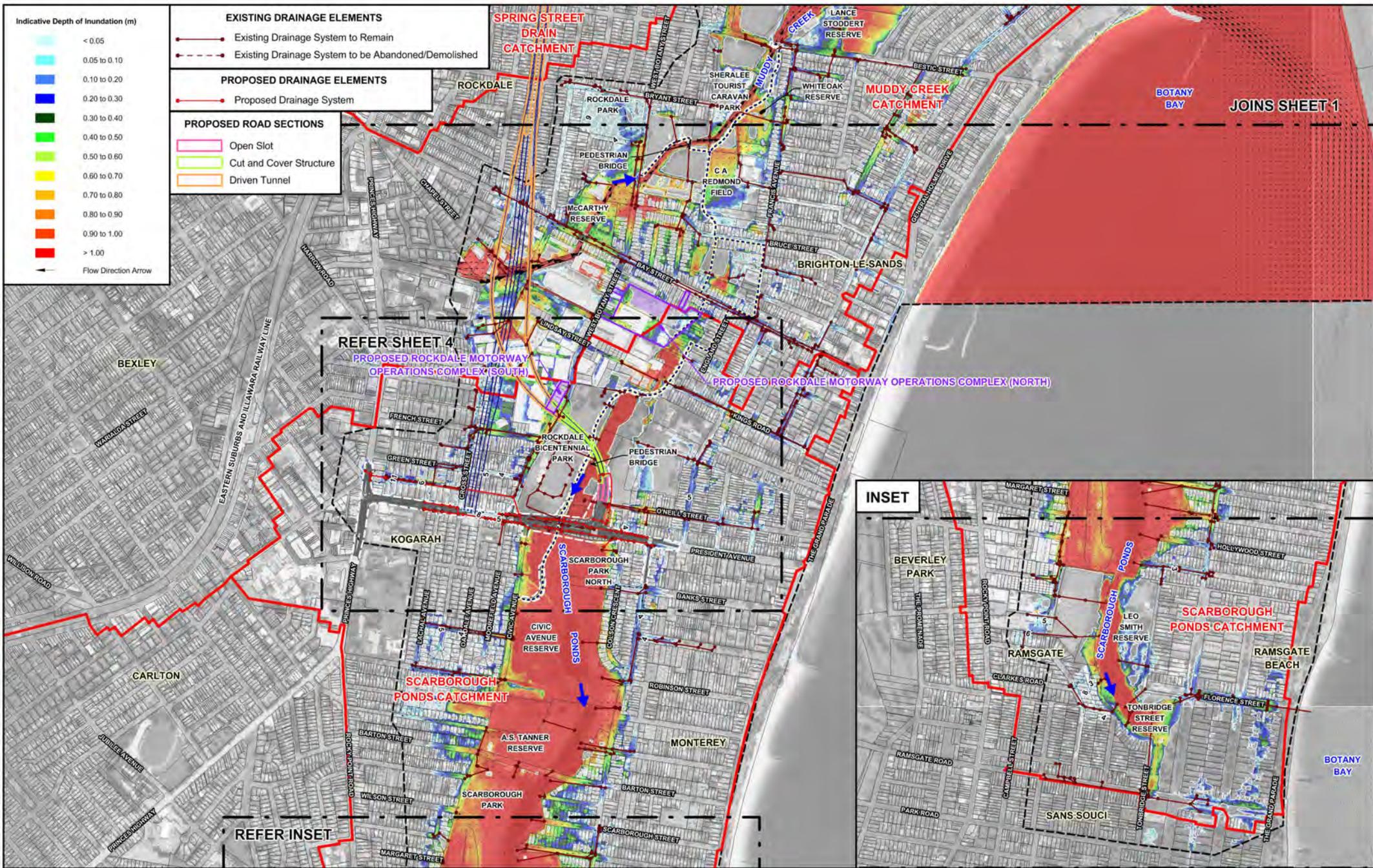
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 - Two-Dimensional Model Boundary
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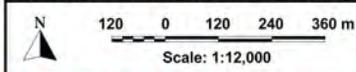
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-17
Sheet 2 of 4

PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW
OPERATIONAL CONDITIONS - 0.2% AEP



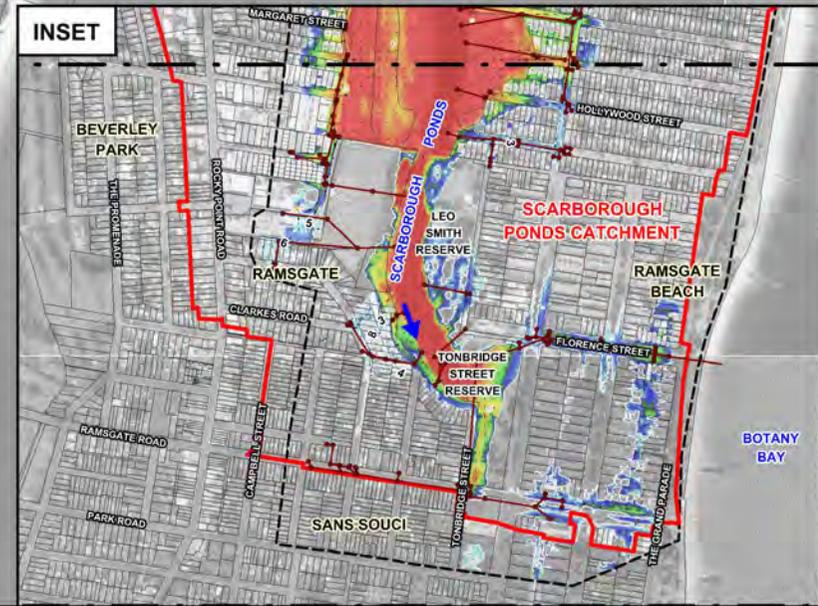
- EXISTING DRAINAGE ELEMENTS**
- Existing Drainage System to Remain
 - Existing Drainage System to be Abandoned/Demolished
- PROPOSED DRAINAGE ELEMENTS**
- Proposed Drainage System
- PROPOSED ROAD SECTIONS**
- Open Slot
 - Cut and Cover Structure
 - Driven Tunnel

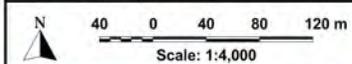
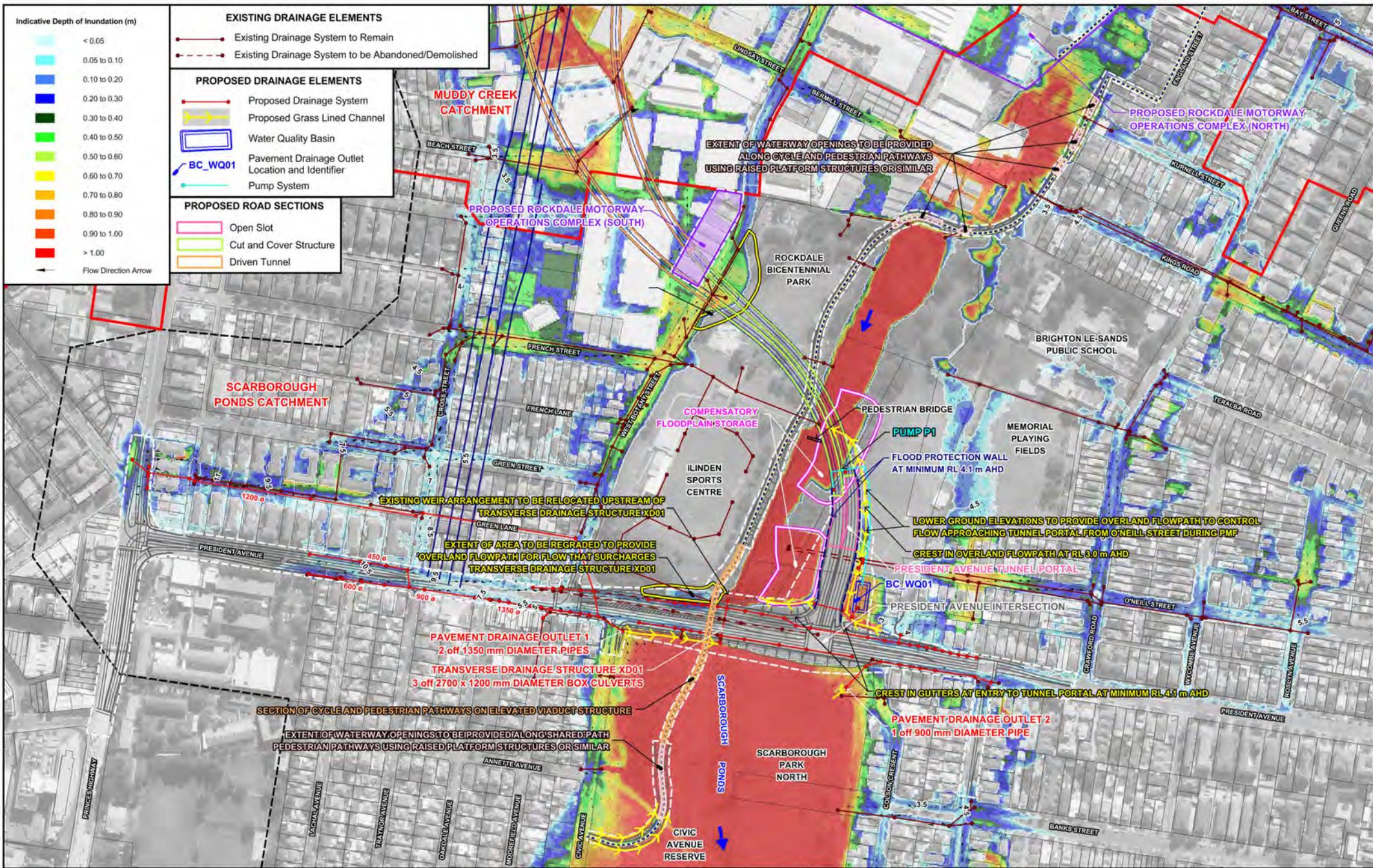


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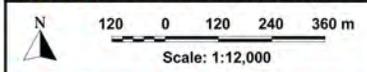
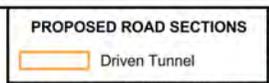
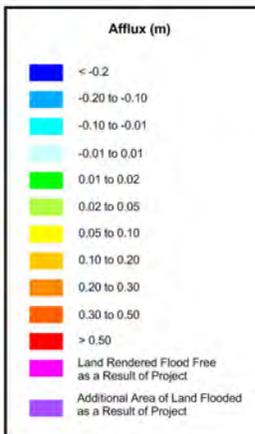
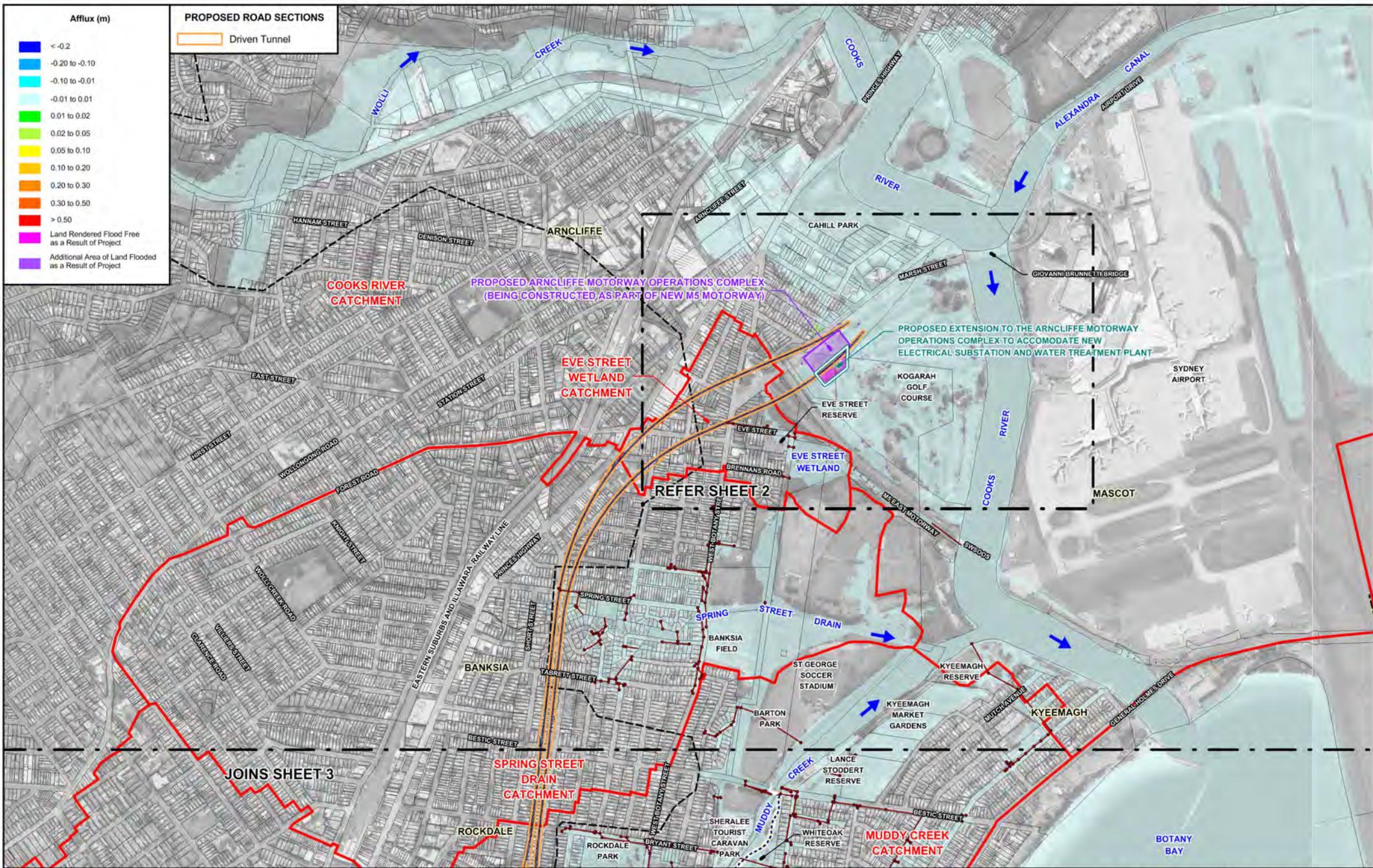
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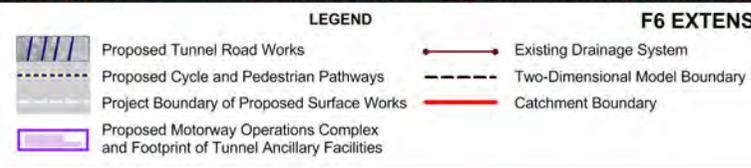
**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-17
 Sheet 4 of 4

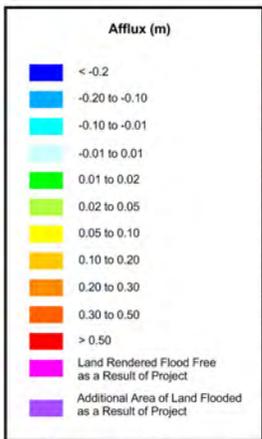
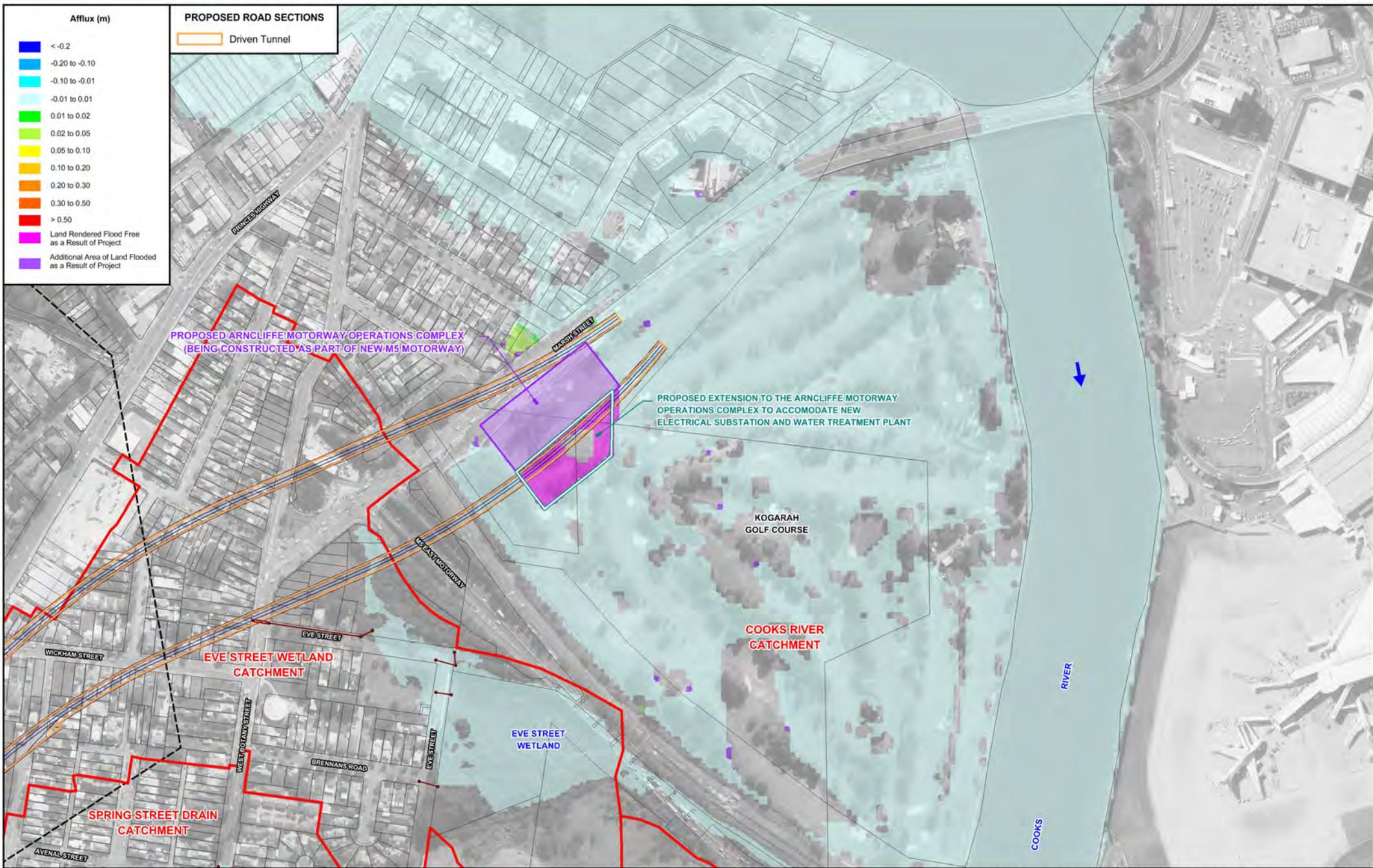
PATTERNS OF MAIN STREAM FLOODING AND MAJOR OVERLAND FLOW OPERATIONAL CONDITIONS - 0.2% AEP



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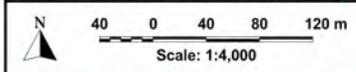


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 FLOODING AND DRAINAGE TECHNICAL REPORT**



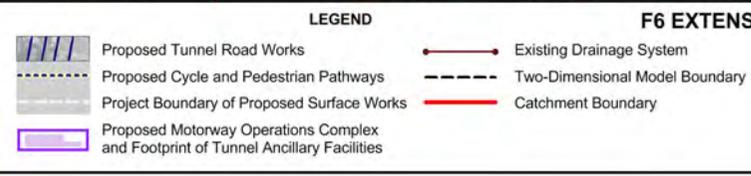
PROPOSED ROAD SECTIONS

- Driven Tunnel



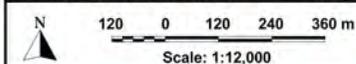
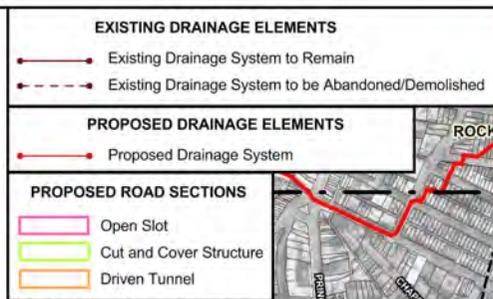
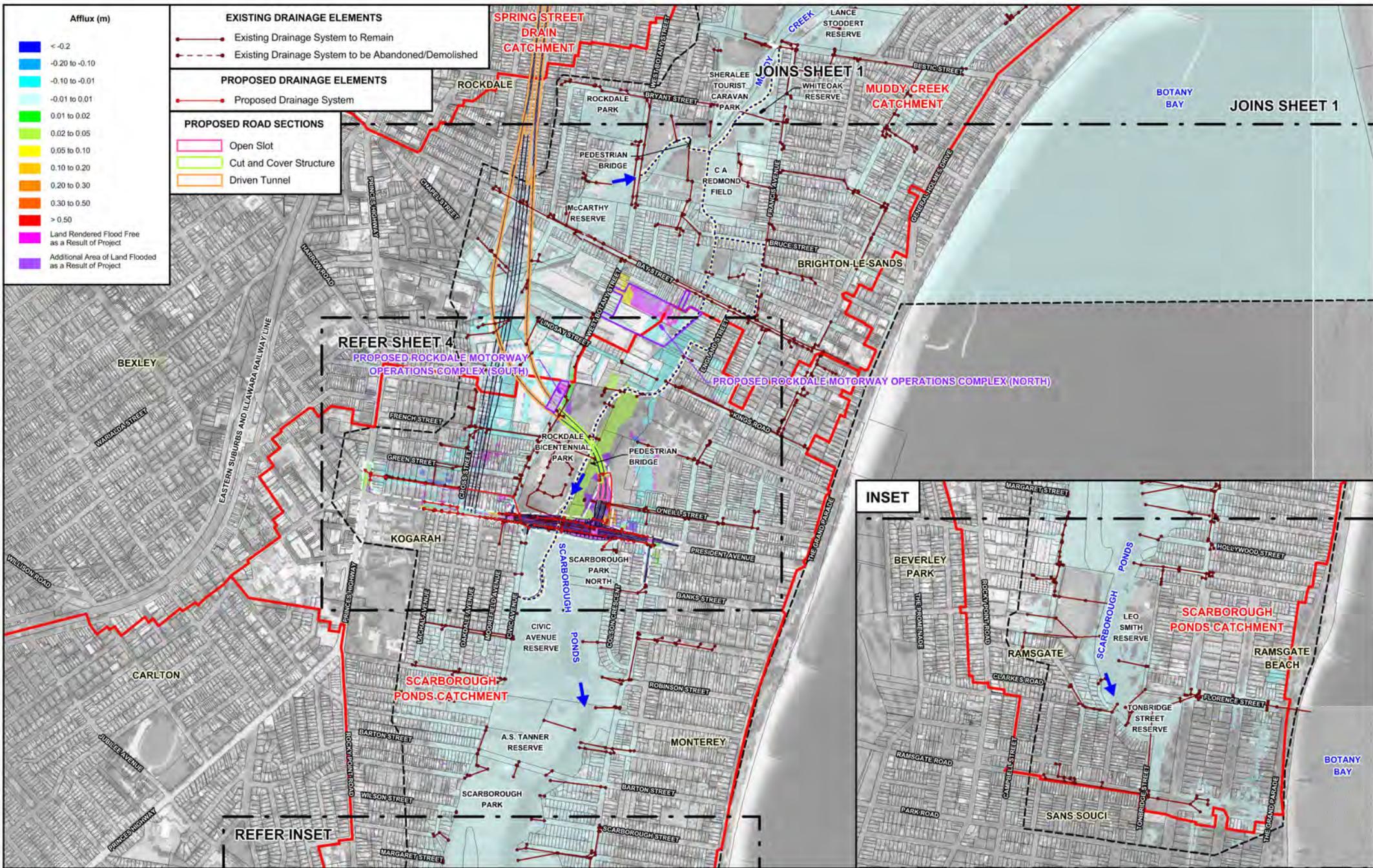
Lyall & Associates

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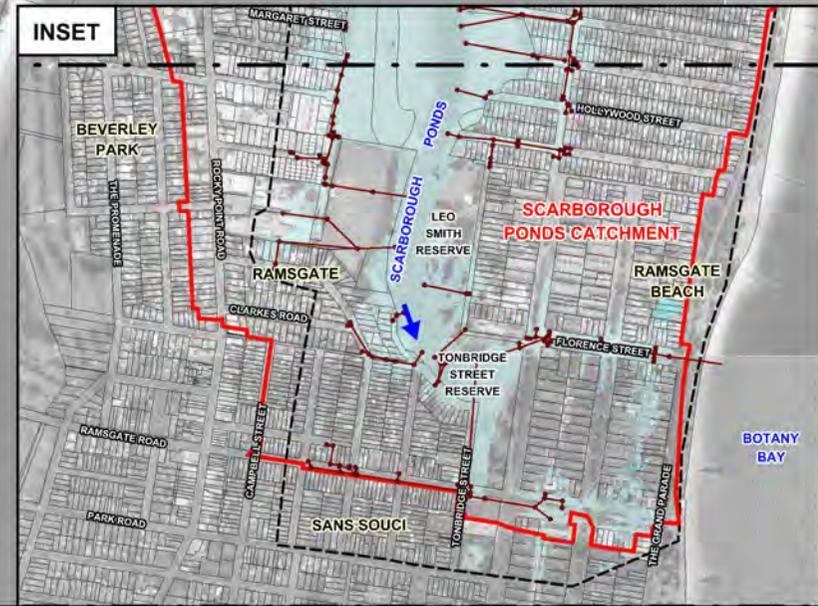
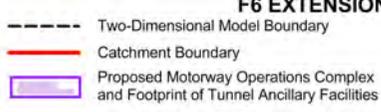
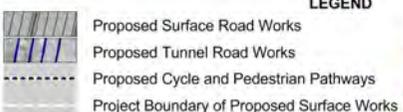


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 FLOODING AND DRAINAGE TECHNICAL REPORT**

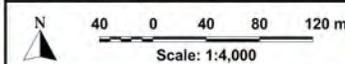
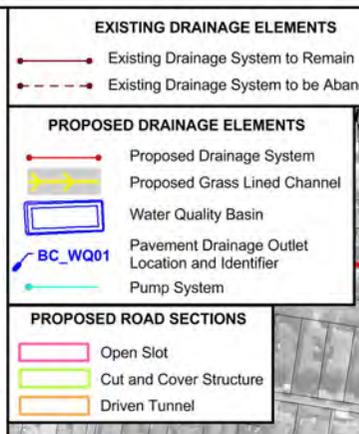
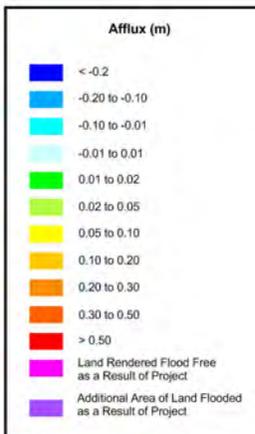
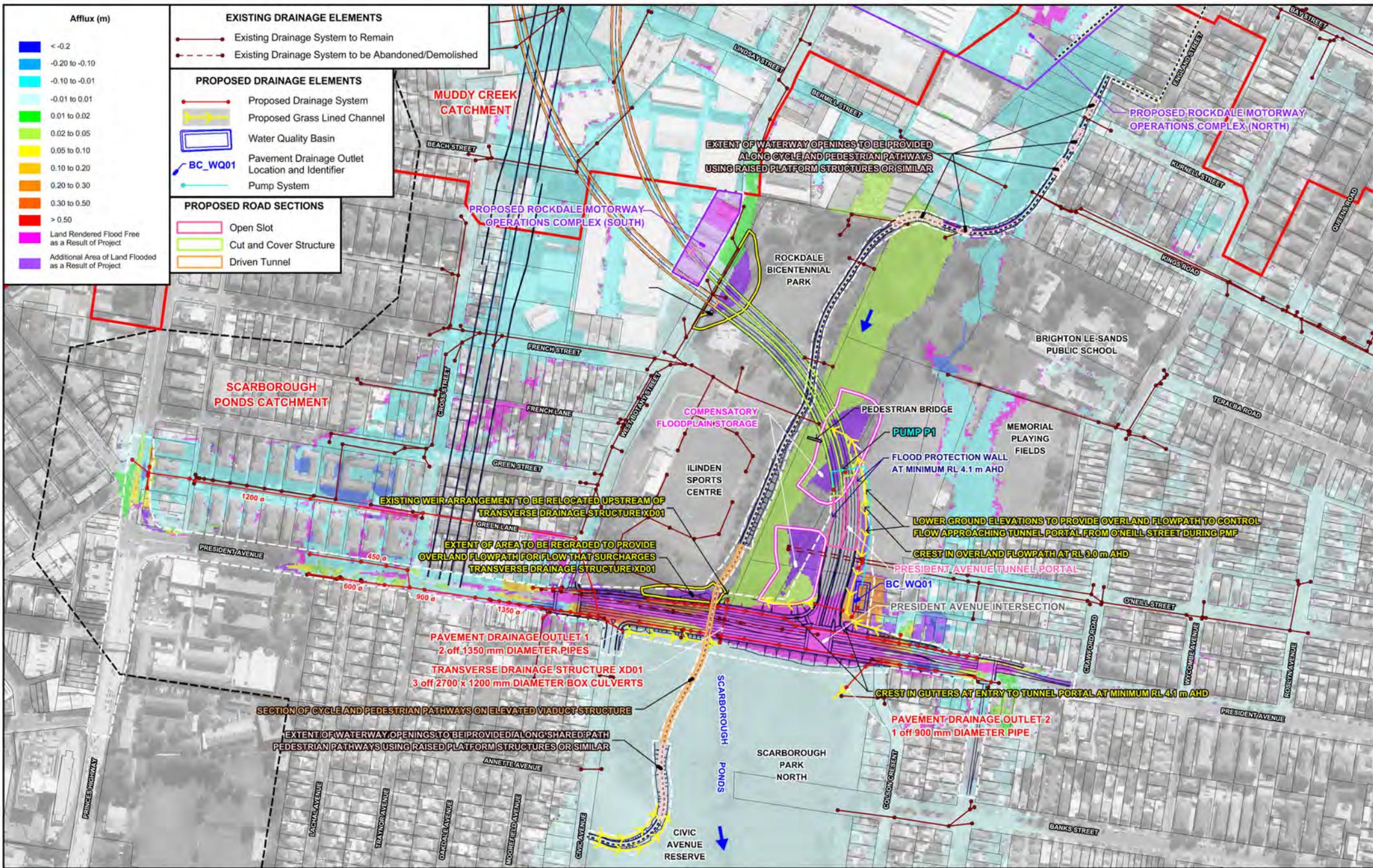
Figure C-18
 Sheet 2 of 4
 IMPACT OF PROJECT OPERATION ON FLOOD BEHAVIOUR
 0.2% AEP



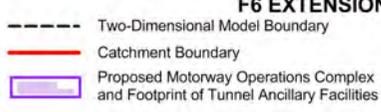
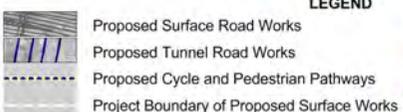
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FLOODING AND DRAINAGE TECHNICAL REPORT**



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**F6 EXTENSION STAGE 1 NEW M5 MOTORWAY TO PRESIDENT AVENUE
 FLOODING AND DRAINAGE TECHNICAL REPORT**

Figure C-18
 Sheet 4 of 4

