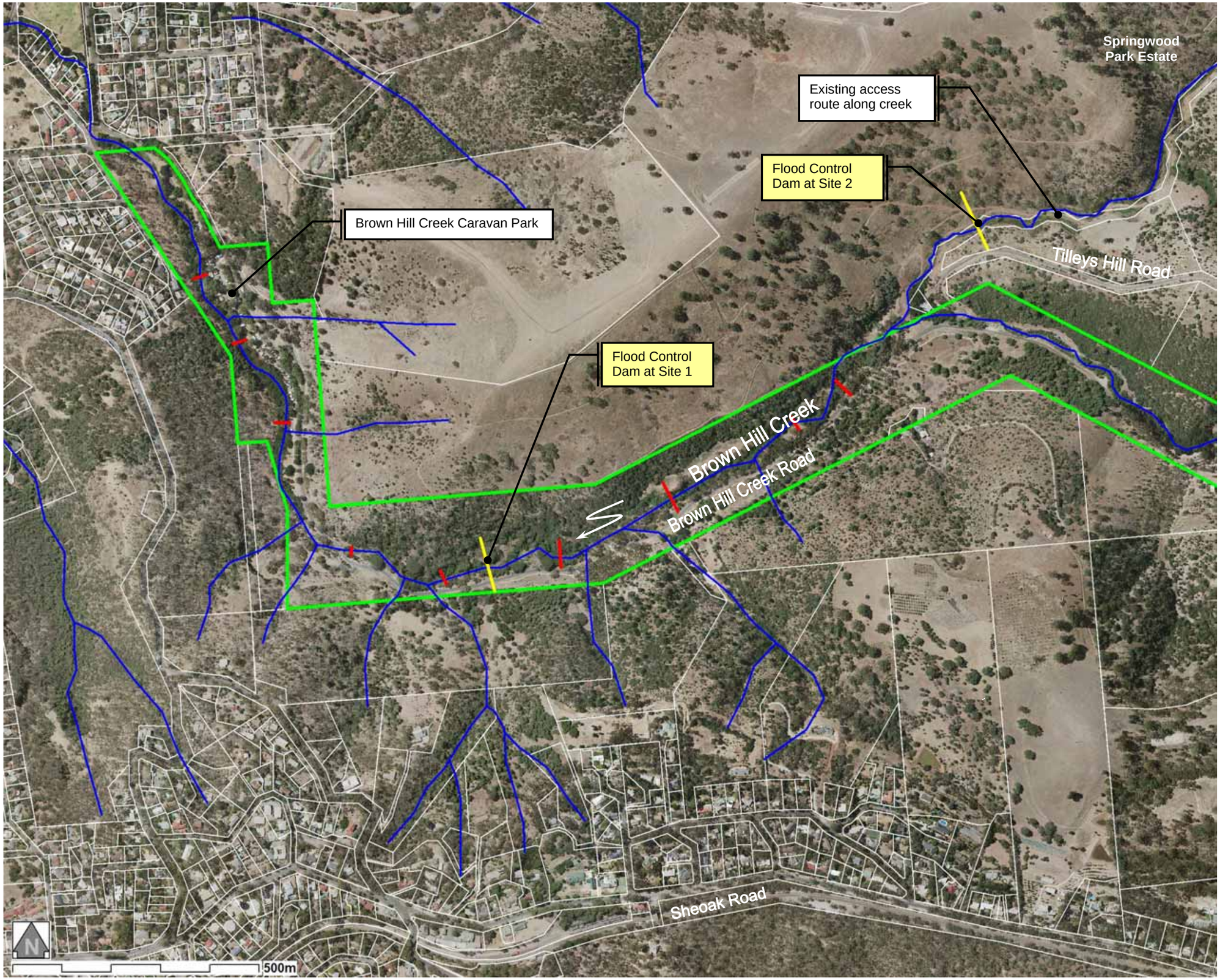
FIGURE 19

DRAFT



LEGEND

- Weir System at Brown Hill Creek Recreation Reserve
- Brown Hill Creek Recreation Reserve

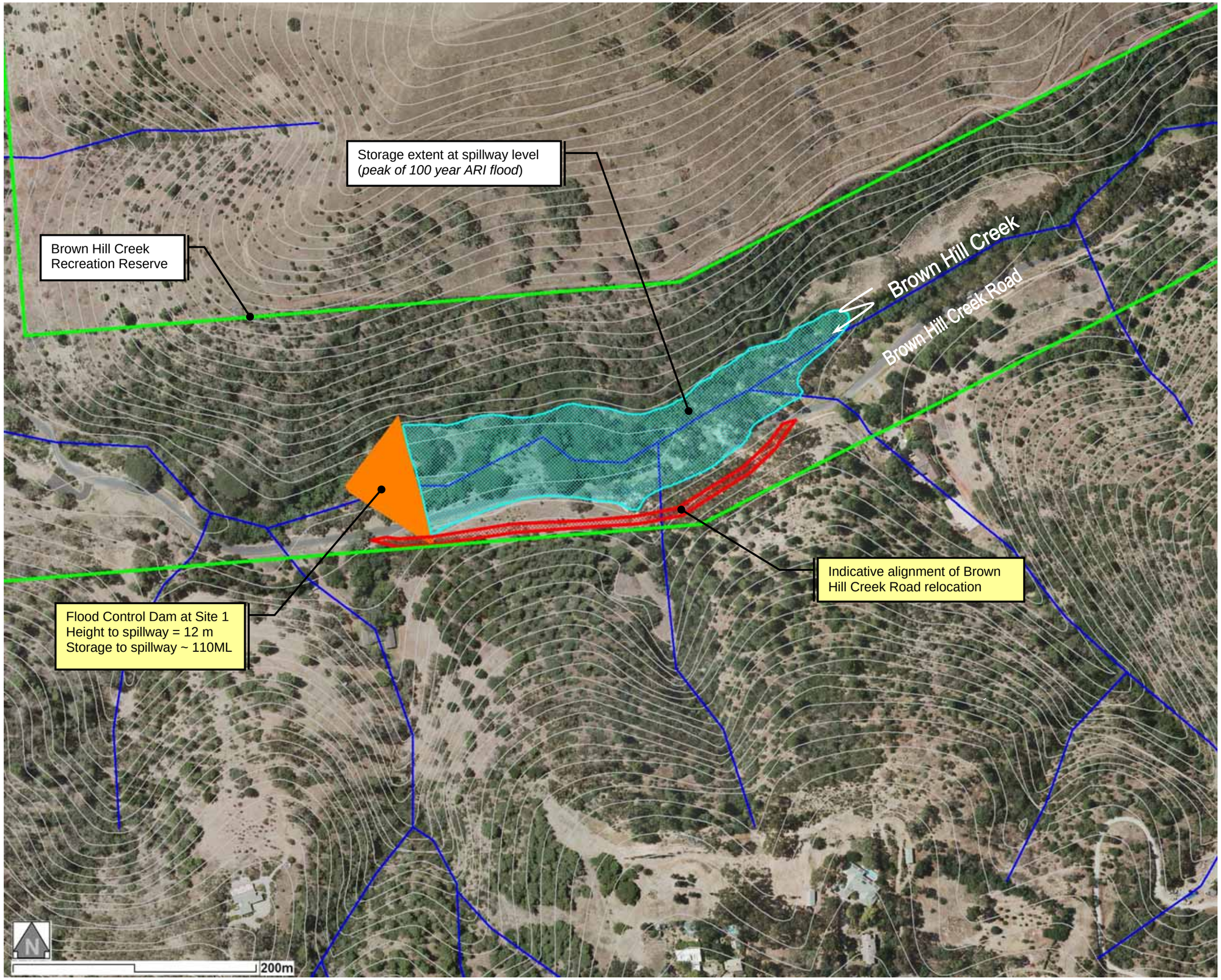
WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_UpperBHCkDams.doc

ALTERNATIVE FLOOD DETENTION OPTIONS FOR UPPER BROWN HILL CREEK

FIGURE 20

DRAFT



LEGEND

Creek / watercourse

Existing (*5 metre interval*) surface contour

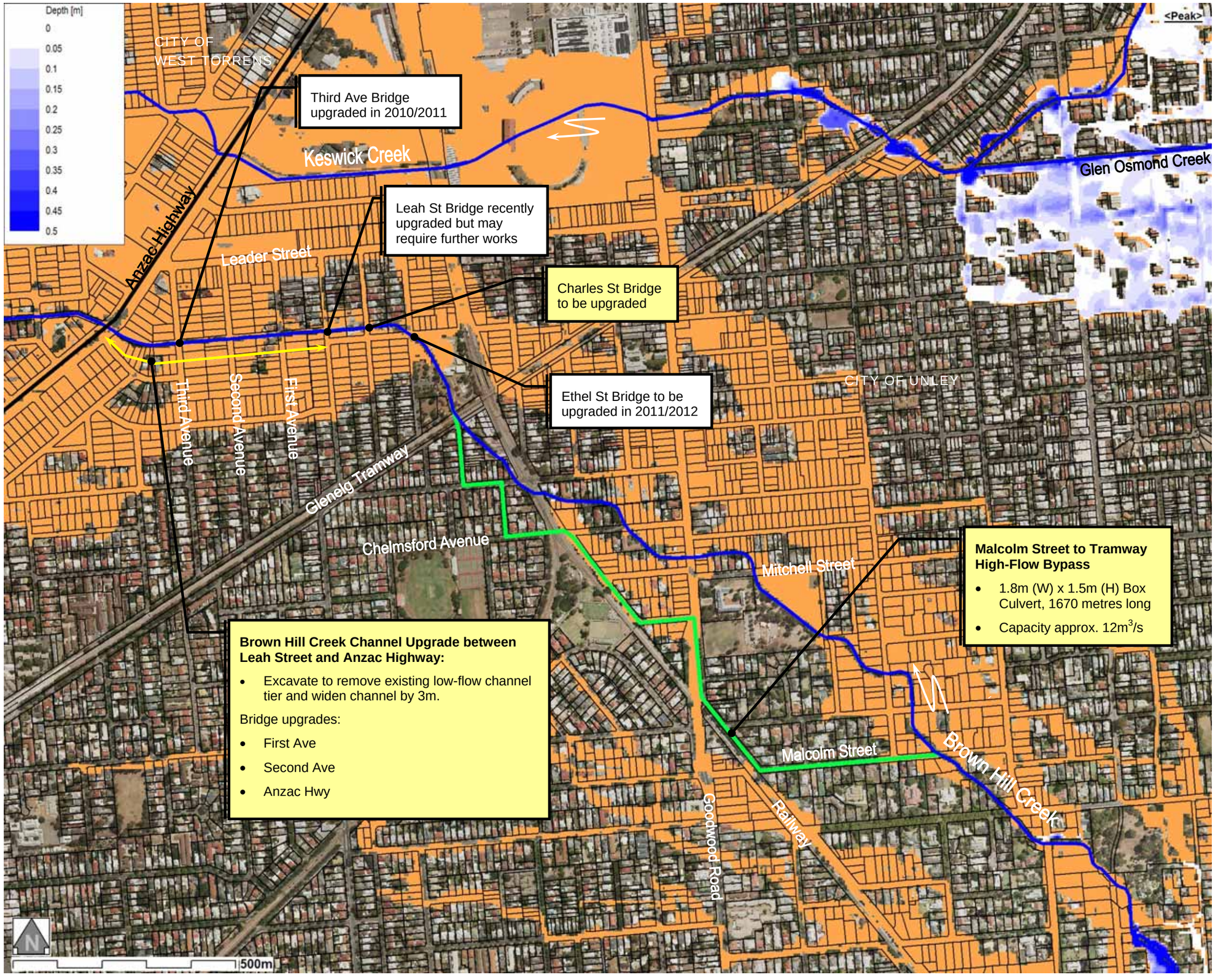
WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_Dam1.doc

FLOOD CONTROL DAM AT SITE 1

FIGURE 21

DRAFT



LEGEND

Council Area Boundary

Base case extent shown for comparison purposes

Note: 100 year ARI depth mapping shown for Flood Control Dam scenario.
Depths > 0.5 metres are shown in blue.

WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_AltSuppWorks+SmallDam1.doc

SUPPLEMENTARY WORKS TO BE USED IN CONJUNCTION WITH SMALLER DAM AT SITE 1

FIGURE 22

DRAFT

LEGEND

Council Area Boundary

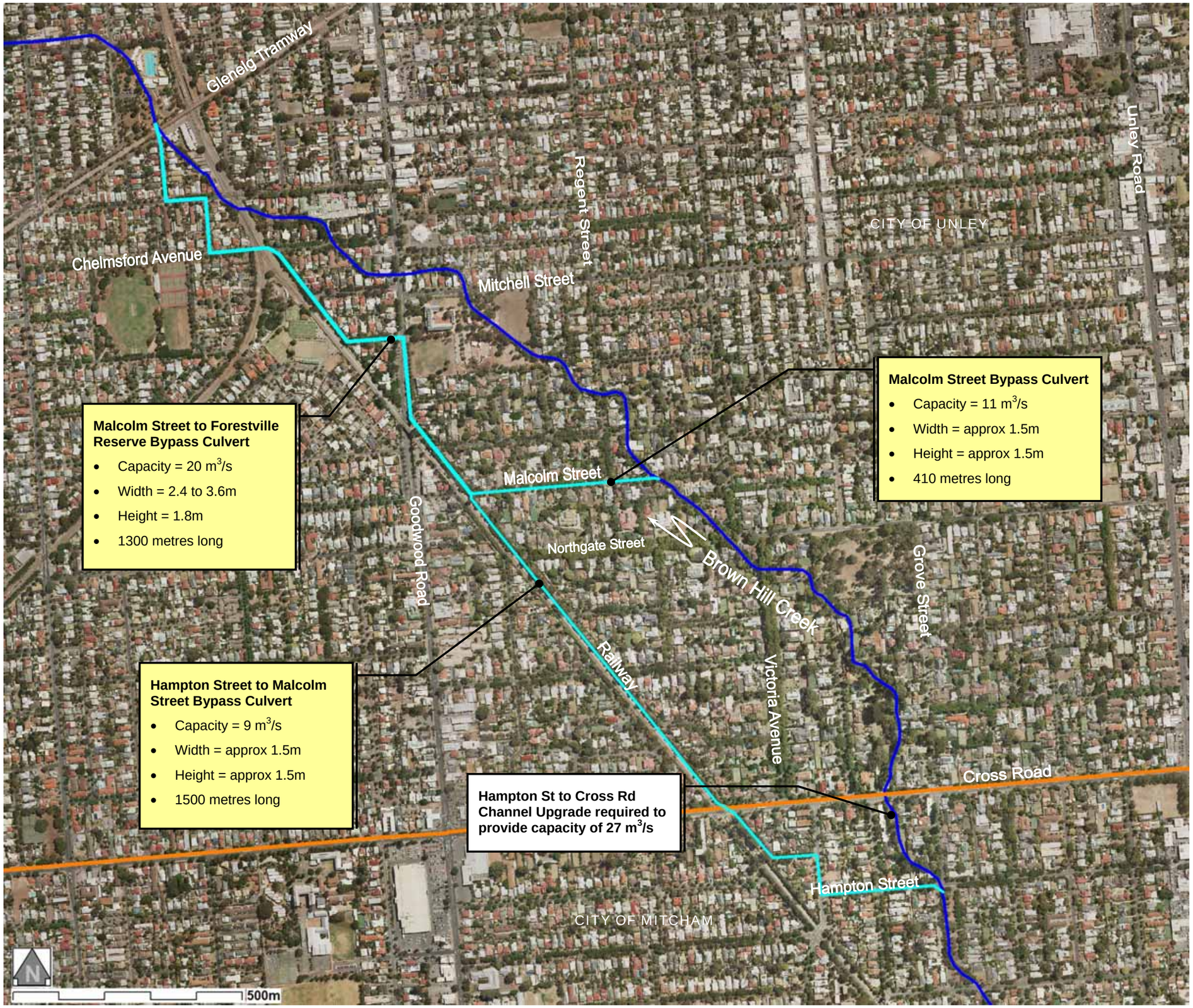
WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120801-fig_Option3 Culvert.doc

OPTION 3 BYPASS CULVERT

FIGURE 23

DRAFT



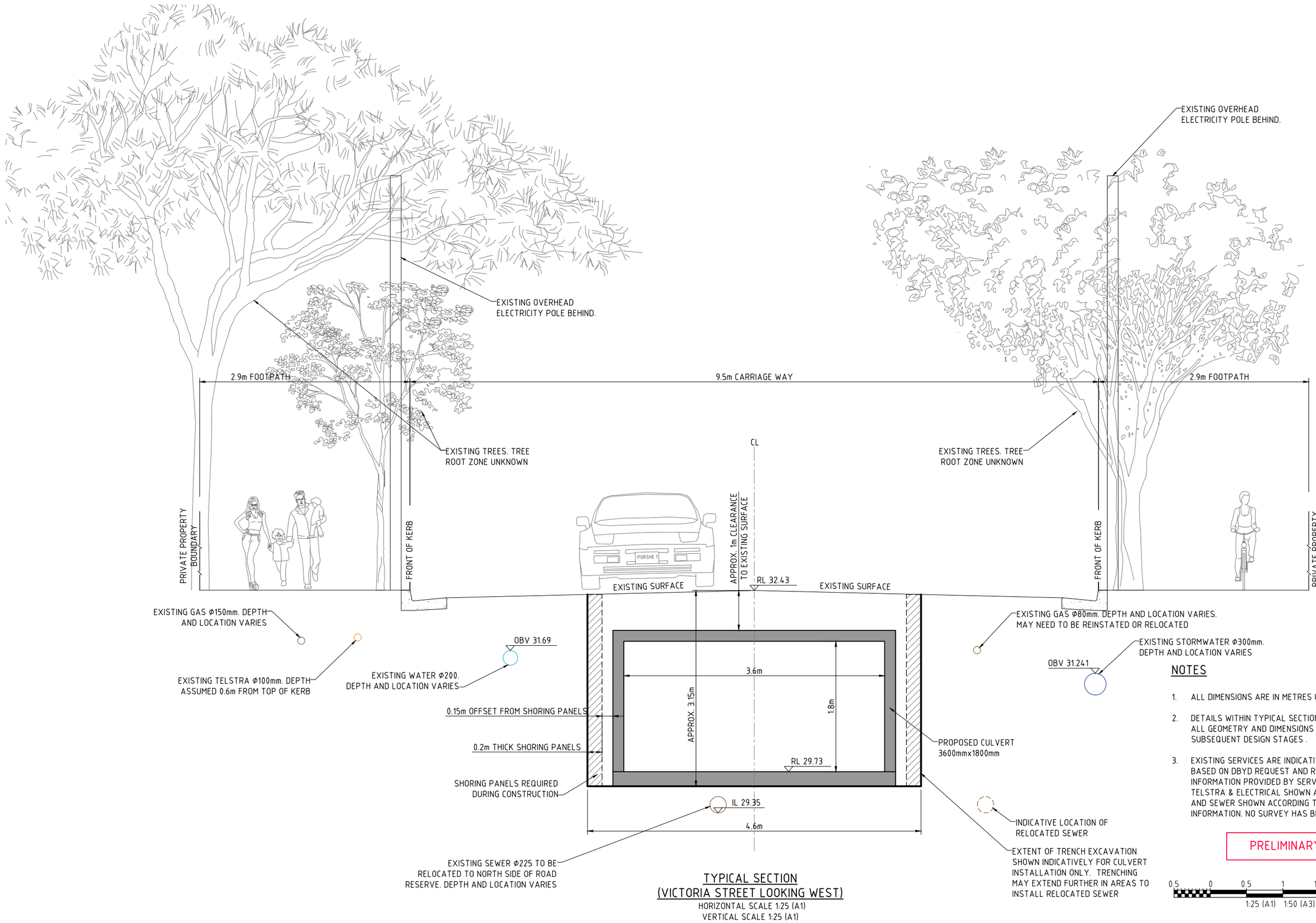
LEGEND

Council Area Boundary

WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120801-fig_Option3A Culvert.doc

OPTION 3A BYPASS CULVERT



TYPICAL SECTION
(VICTORIA STREET LOOKING WEST)

HORIZONTAL SCALE 1:25 (A1)
VERTICAL SCALE 1:25 (A1)

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. DETAILS WITHIN TYPICAL SECTION ARE CONCEPTUAL ONLY. ALL GEOMETRY AND DIMENSIONS TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGES .
3. EXISTING SERVICES ARE INDICATIVE ONLY AND HAVE BEEN BASED ON DBYD REQUEST AND RELEVANT ADDITIONAL INFORMATION PROVIDED BY SERVICE AUTHORITIES. GAS, TELSTRA & ELECTRICAL SHOWN AT ASSUMED DEPTH. WATER AND SEWER SHOWN ACCORDING TO SOUTH AUSTRALIA WATER INFORMATION. NO SURVEY HAS BEEN UNDERTAKEN.

PRELIMINARY

0.5 0 0.5 1 1.5 2.0 2.5m

1:25 (A1) 1:50 (A3)

WorleyParsons
resources & energy

OneWay
to zero harm

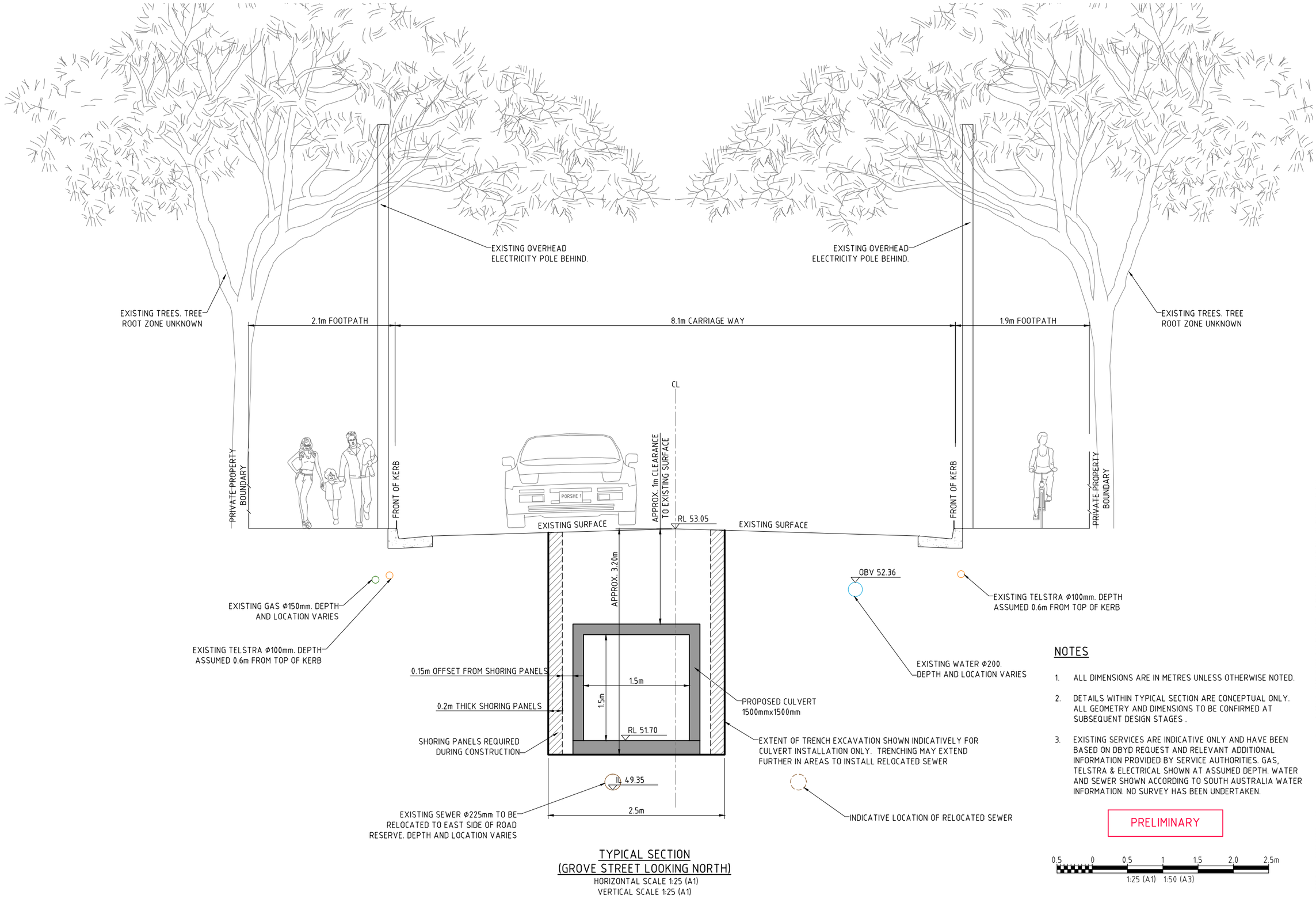
ISSUE	DATE	ISSUE DESCRIPTION
D	23.03.12	ISSUED FOR INFORMATION
C	16.02.12	PRELIMINARY
B	10.02.12	PRELIMINARY
A	20.01.12	PRELIMINARY

BHKC
STORMWATER
PROJECT

BROWN HILL CREEK OPTION 3 FLOW BYPASS CULVERT
MALCOLM STREET TO FORESTVILLE RESERVE
TYPICAL SECTION WITHIN VICTORIA STREET

FIGURE 24

PLOT DATE & TIME: 23/3/2012 4:14:22 PM
SAVE DATE & TIME: 23/3/2012 12:42:27 PM
USER NAME: philcornish
CTB FILE: __00-WP-Syd-std.ctb
LOCATION: S:\02356 - BROWN HILL & KESWICK CREEKS SMP\11.0 DRAWINGS\SKETCHES\FIGURE 11 TO 12.DWG
Plotter:L11SYDIR(cL580PS-COL.pc3



TYPICAL SECTION (GROVE STREET LOOKING NORTH)

HORIZONTAL SCALE 1:25 (A1)
VERTICAL SCALE 1:25 (A1)

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. DETAILS WITHIN TYPICAL SECTION ARE CONCEPTUAL ONLY. ALL GEOMETRY AND DIMENSIONS TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGES .
3. EXISTING SERVICES ARE INDICATIVE ONLY AND HAVE BEEN BASED ON DBYD REQUEST AND RELEVANT ADDITIONAL INFORMATION PROVIDED BY SERVICE AUTHORITIES. GAS, TELSTRA & ELECTRICAL SHOWN AT ASSUMED DEPTH. WATER AND SEWER SHOWN ACCORDING TO SOUTH AUSTRALIA WATER INFORMATION. NO SURVEY HAS BEEN UNDERTAKEN.

PRELIMINARY

0.5 0 0.5 1 1.5 2.0 2.5m
1:25 (A1) 1:50 (A3)

WorleyParsons
resources & energy

OneWay
to zero harm

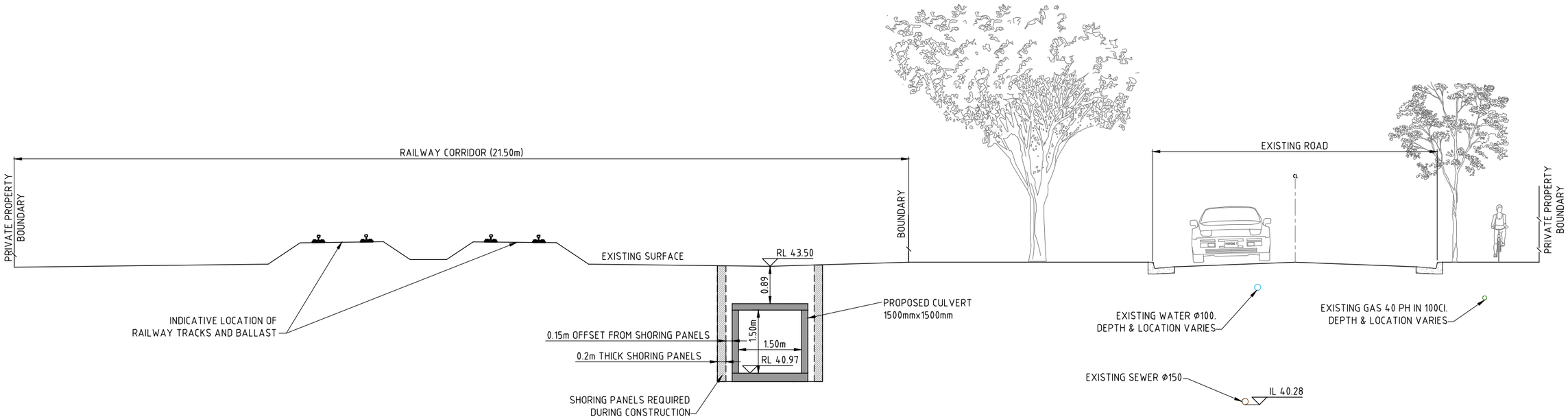
ISSUE	DATE	ISSUE DESCRIPTION
B	23.03.12	ISSUED FOR INFORMATION
A	15.02.12	PRELIMINARY

BHKC
STORMWATER PROJECT

BROWN HILL CREEK OPTION 3 FLOW BYPASS CULVERT
HAMPTON STREET TO MALCOLM STREET
TYPICAL SECTION WITHIN GROVE STREET

FIGURE 25

PLOT DATE & TIME: 23/3/2012 4:20:13 PM USER NAME: philcornish LOCATION: S:\02356 - BROWN HILL & KESWICK CREEKS SMP\110 DRAWINGS\SKETCHES\FIGURE 23.DWG
SAVE DATE & TIME: 23/3/2012 3:07:42 PM CTB FILE: __00-WP-Syd-std.ctb Plotter:L11SYDRC4580PS-COL.pc3



TYPICAL SECTION LOOKING NORTH WEST AT NANTHEA TCE NORTH

HORIZONTAL SCALE 1:50 (A1)
VERTICAL SCALE 1:50(A1)

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. DETAILS WITHIN TYPICAL SECTION ARE CONCEPTUAL ONLY. ALL GEOMETRY AND DIMENSIONS TO BE CONFIRMED AT SUBSEQUENT DESIGN STAGES .
3. EXISTING SERVICES ARE INDICATIVE ONLY AND HAVE BEEN BASED ON DBYD REQUEST AND RELEVANT ADDITIONAL INFORMATION PROVIDED BY SERVICE AUTHORITIES. GAS, TELSTRA & ELECTRICAL SHOWN AT ASSUMED DEPTH. WATER AND SEWER SHOWN ACCORDING TO SOUTH AUSTRALIA WATER INFORMATION. NO SURVEY HAS BEEN UNDERTAKEN.
4. UNDERGROUND SIGNAL AND TELECOMMUNICATIONS ASSETS WITHIN THE RAIL CORRIDOR HAVE NOT BEEN LOCATED. WILL REQUIRE UNDERGROUND SURVEY AS PART OF FURTHER INVESTIGATION.

PRELIMINARY

WorleyParsons
resources & energy

OneWay
to zero harm

ISSUE	DATE	ISSUE DESCRIPTION
A	23.03.12	ISSUED FOR INFORMATION

1000 0 1000 2000 3000 4000 5000mm
1:50 (A1) 1:100 (A3)

BHKC
STORMWATER PROJECT

BROWN HILL CREEK OPTION 3A FLOW BYPASS CULVERT
HAMPTON STREET TO MALCOLM STREET
TYPICAL SECTION THROUGH RAILWAY CORRIDOR

FIGURE 26

PLOT DATE & TIME: 23/3/2012 4:36:36 PM
SAVE DATE & TIME: 23/3/2012 4:29:51 PM
USER NAME: phil.cornish
CTB FILE: __00-WP-Syd-std.ctb
LOCATION: S:\02356 - BROWN HILL & KESWICK CREEKS SMP\11.0 DRAWINGS\SKETCHES\FIGURE 25 - POTENTIAL UPSTREAM GENERAL ARRANGEMENT PLAN.DWG
PlotTer:L11SYDRC4S80PS-COL.pc3

FIGURE 27

DRAFT

Detention Basins in South Park Lands / Glenside Campus

Keswick Creek

Keswick Creek Diversion Culvert (*Anzac Hwy Diversion*)

Anzac Highway

Parklands Creek

CITY OF BURNSIDE

Glen Osmond Creek

Fullarton Road

Keswick Creek Diversion Culvert (*Le Hunte St Diversion*)

Bypass Culvert at Fisher St

Leah St to Anzac Hwy Channel Upgrade

Glenelg Tramway

Brown Hill Creek Channel Upgrade (*Anzac Hwy to Confluence with Keswick Ck*)

CITY OF UNLEY

Ridge Park Reserve Detention Basin

Goodwood Road

Part B Works

Malcolm St to Tramway High-Flow Bypass

Cross Road

Part B Works

Hampton St to Cross Rd Channel Upgrade

Railway

Brown Hill Creek

South Road

Mt Osmond Interchange Dam Modification (*completed already*)

CITY OF MITCHAM

Part B Works

Flood Control Dam at Site 1

LEGEND

Council Area Boundary

Creek / watercourse

N

2000m

WorleyParsons

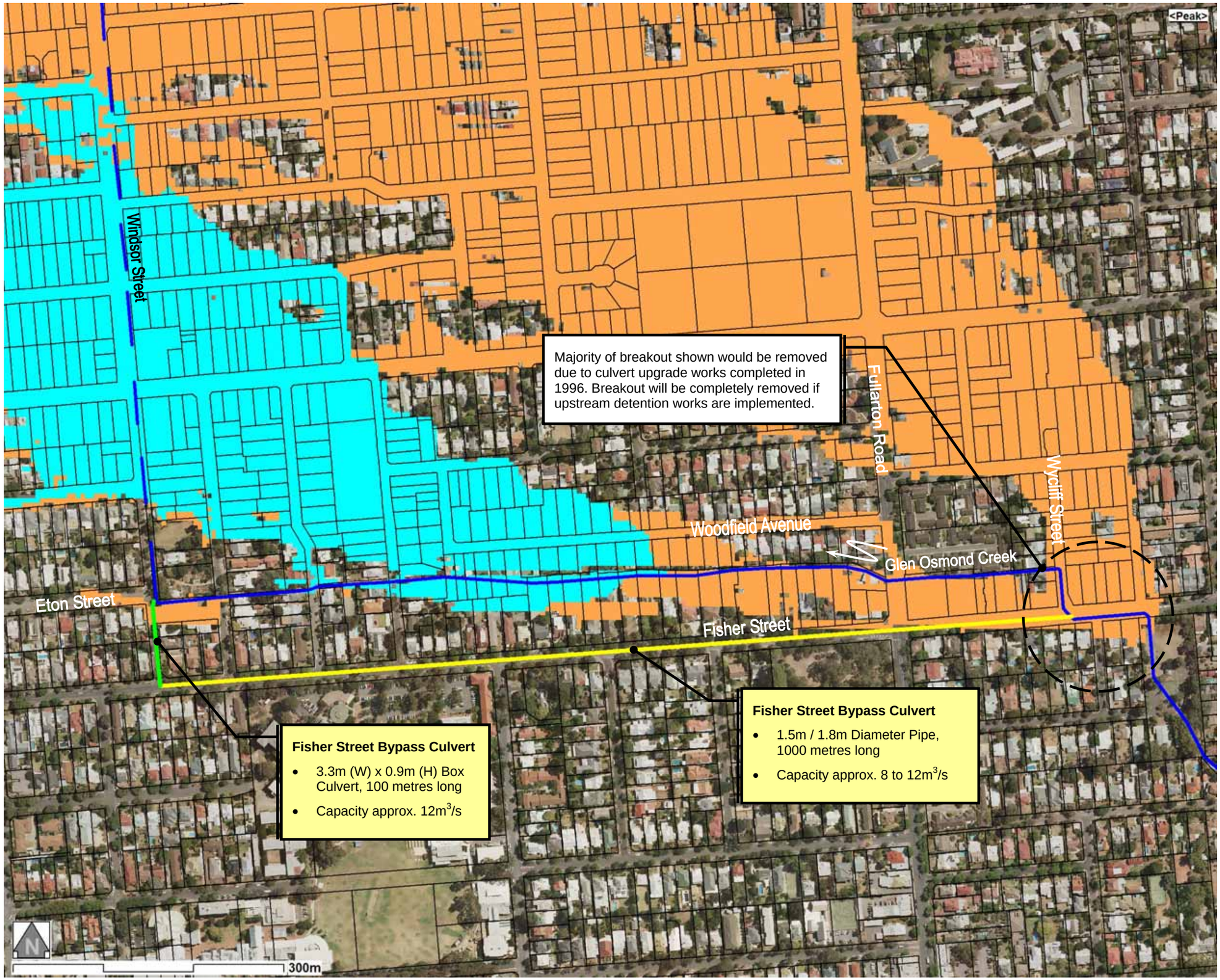
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110803-fig_SMPworks.doc

STORMWATER MANAGEMENT PLAN
MITIGATION WORKS COMPONENTS

FIGURE 28

DRAFT



LEGEND

- 100 year ARI base case extent
- 100 year ARI flood extent for residual breakout, which would otherwise be avoided with the new bypass culvert

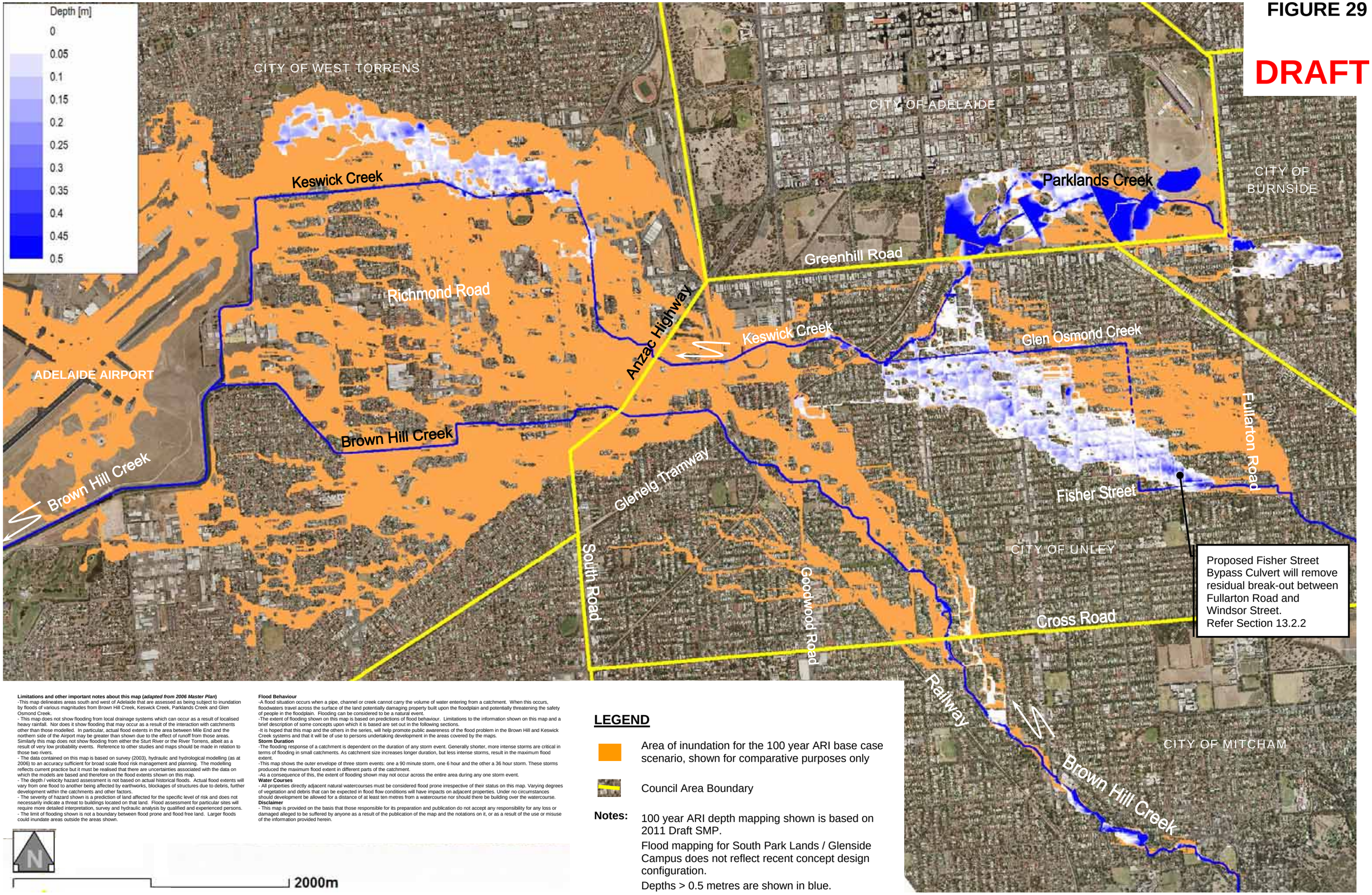
WorleyParsons
resources & energy

Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_Fisher St Culvert.doc

BYPASS CULVERT AT FISHER STREET

FIGURE 29

DRAFT



Limitations and other important notes about this map (*adapted from 2006 Master Plan*)

-This map delineates areas south and west of Adelaide that are assessed as being subject to inundation by floods of various magnitudes from Brown Hill Creek, Keswick Creek, Parklands Creek and Glen Osmond Creek.

- This map does not show flooding from local drainage systems which can occur as a result of localised heavy rainfall. Nor does it show flooding that may occur as a result of the interaction with catchments other than those modelled. In particular, actual flood extents in the area between Mile End and the northern side of the Airport may be greater than shown due to the effect of runoff from those areas. Similarly this map does not show flooding from either the Sturt River or the River Torrens, albeit as a result of very low probability events. Reference to other studies and maps should be made in relation to those two rivers.
- The data contained on this map is based on survey (2003), hydraulic and hydrological modelling (as at 2006) to an accuracy sufficient for broad scale flood risk management and planning. The modelling reflects current practice but it must be realised that there are uncertainties associated with the data on which the models are based and therefore on the flood extents shown on this map.
- The depth / velocity hazard assessment is not based on actual historical floods. Actual flood extents will vary from one flood to another being affected by earthworks, blockages of structures due to debris, further development within the catchments and other factors.
- The severity of hazard shown is a prediction of land affected for the specific level of risk and does not necessarily indicate a threat to buildings located on that land. Flood assessment for particular sites will require more detailed interpretation, survey and hydraulic analysis by qualified and experienced persons.
- The limit of flooding shown is not a boundary between flood prone and flood free land. Larger floods could inundate areas outside the areas shown.

Flood Behaviour

-A flood situation occurs when a pipe, channel or creek cannot carry the volume of water entering from a catchment. When this occurs, floodwaters travel across the surface of the land potentially damaging property built upon the floodplain and potentially threatening the safety of people in the floodplain. Flooding can be considered to be a natural event.

-The extent of flooding shown on this map is based on predictions of flood behaviour. Limitations to the information shown on this map and a brief description of some concepts upon which it is based are set out in the following sections.

-It is hoped that this map and the others in the series, will help promote public awareness of the flood problem in the Brown Hill and Keswick Creek systems and that it will be of use to persons undertaking development in the areas covered by the maps.

Storm Duration

-The flooding response of a catchment is dependent on the duration of any storm event. Generally shorter, more intense storms are critical in terms of flooding in small catchments. As catchment size increases longer duration, but less intense storms, result in the maximum flood extent.

-This map shows the outer envelope of three storm events: one a 90 minute storm, one 6 hour and the other a 36 hour storm. These storms produced the maximum flood extent in different parts of the catchment.

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Water Courses

- All properties directly adjacent natural watercourses must be considered flood prone irrespective of their status on this map. Varying degrees of vegetation and debris that can be expected in flood flow conditions will have impacts on adjacent properties. Under no circumstances should development be allowed for a distance of at least ten metres from a watercourse nor should there be building over the watercourse.

Disclaimer

- This map is provided on the basis that those responsible for its preparation and publication do not accept any responsibility for any loss or damaged alleged to be suffered by anyone as a result of the publication of the map and the notations on it, or as a result of the use or misuse of the information provided herein.

N

2000m

LEGEND

Area of inundation for the 100 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

100 year ARI depth mapping shown is based on 2011 Draft SMP.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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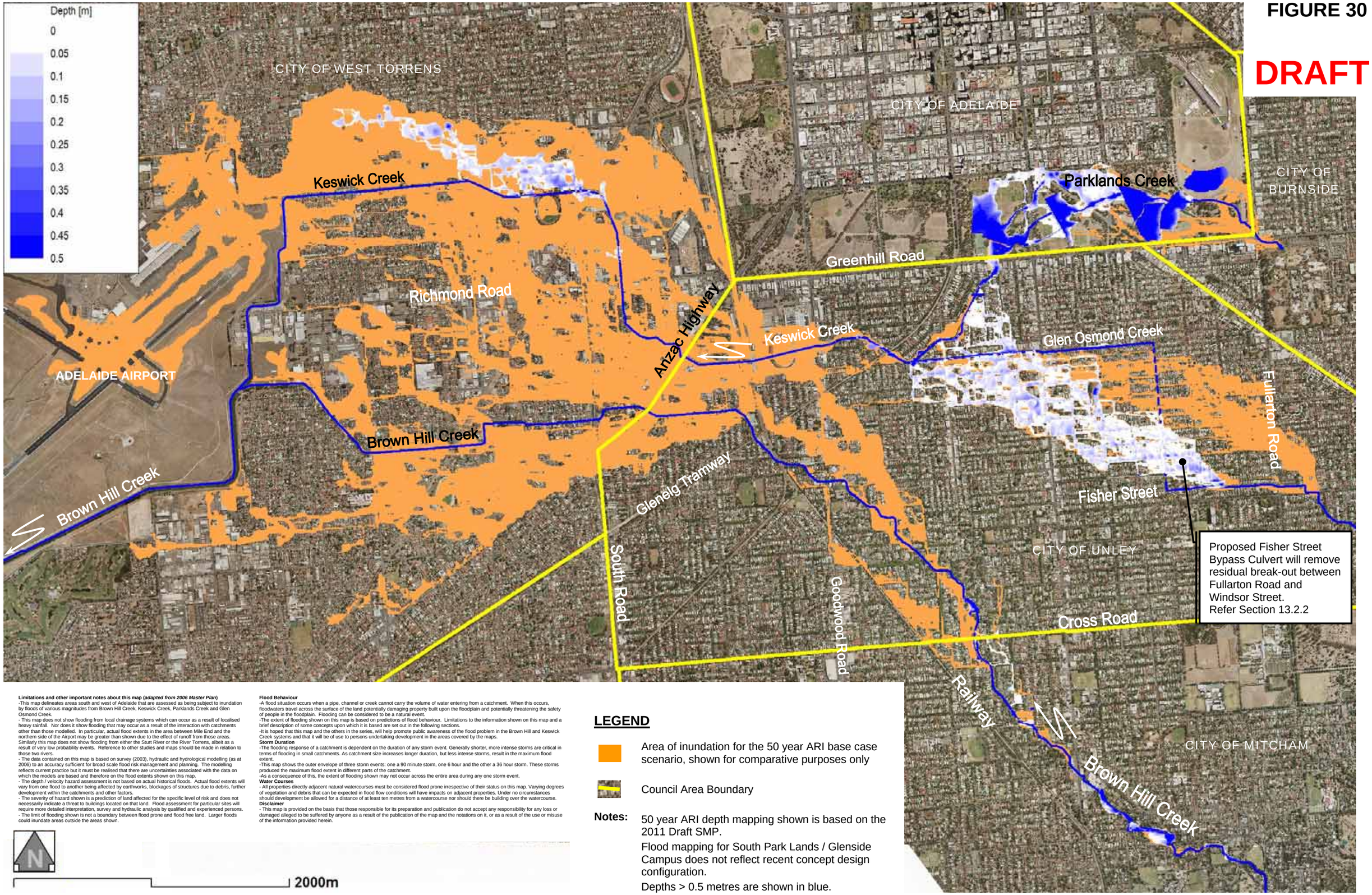
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110831-fig_SMP100yrvsBaseCase.doc

100 YEAR ARI FLOOD MAPPING
[Based on 2011 Draft SMP – Whole of Catchment Works]

FIGURE 30

DRAFT



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N

2000m

LEGEND

Area of inundation for the 50 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

50 year ARI depth mapping shown is based on the 2011 Draft SMP.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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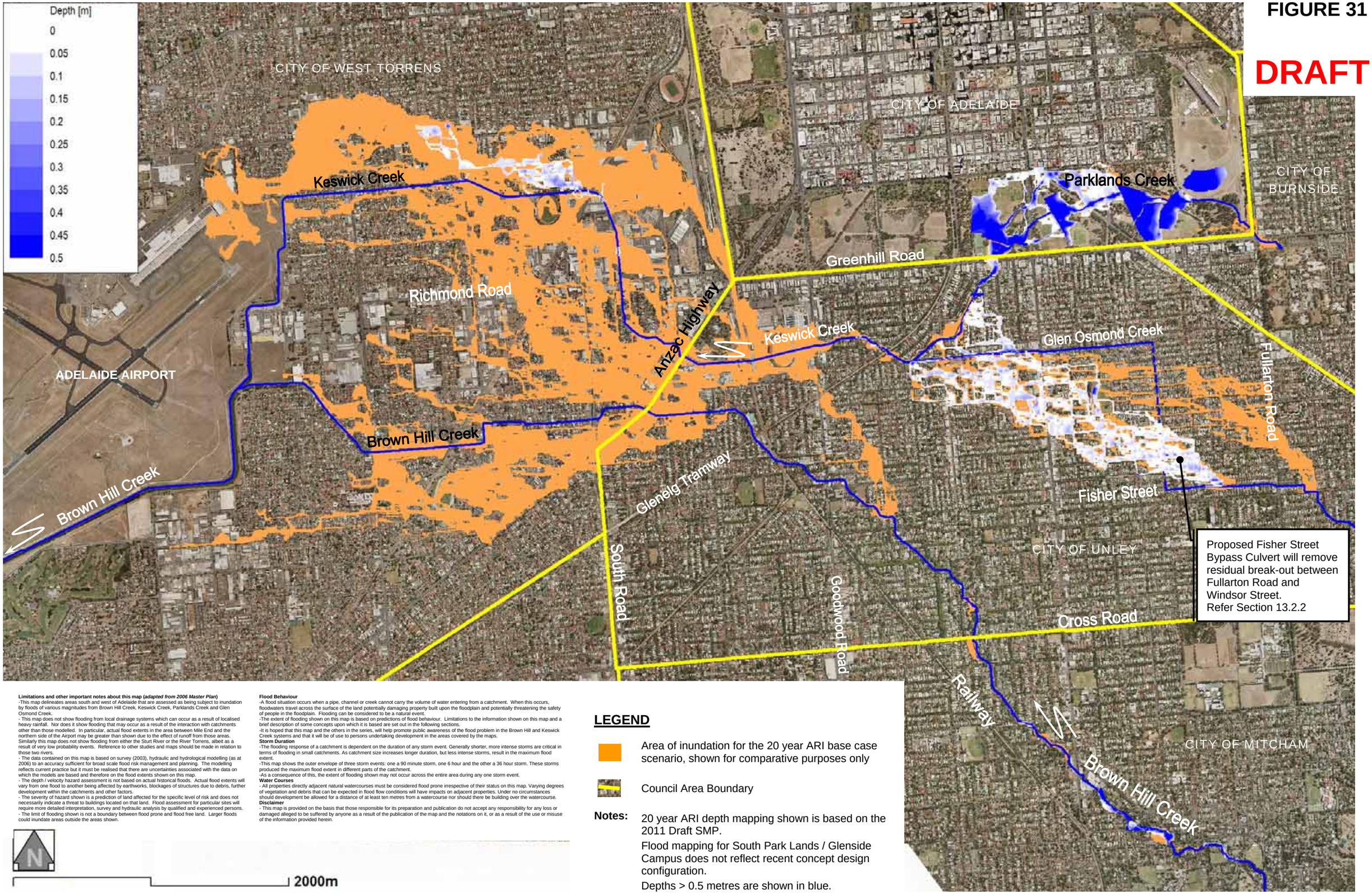
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_SMP50yrvsBaseCase.doc

50 YEAR ARI FLOOD MAPPING
[Based on 2011 Draft SMP – Whole of Catchment Works]

FIGURE 31

DRAFT



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LEGEND

Area of inundation for the 20 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

20 year ARI depth mapping shown is based on the 2011 Draft SMP.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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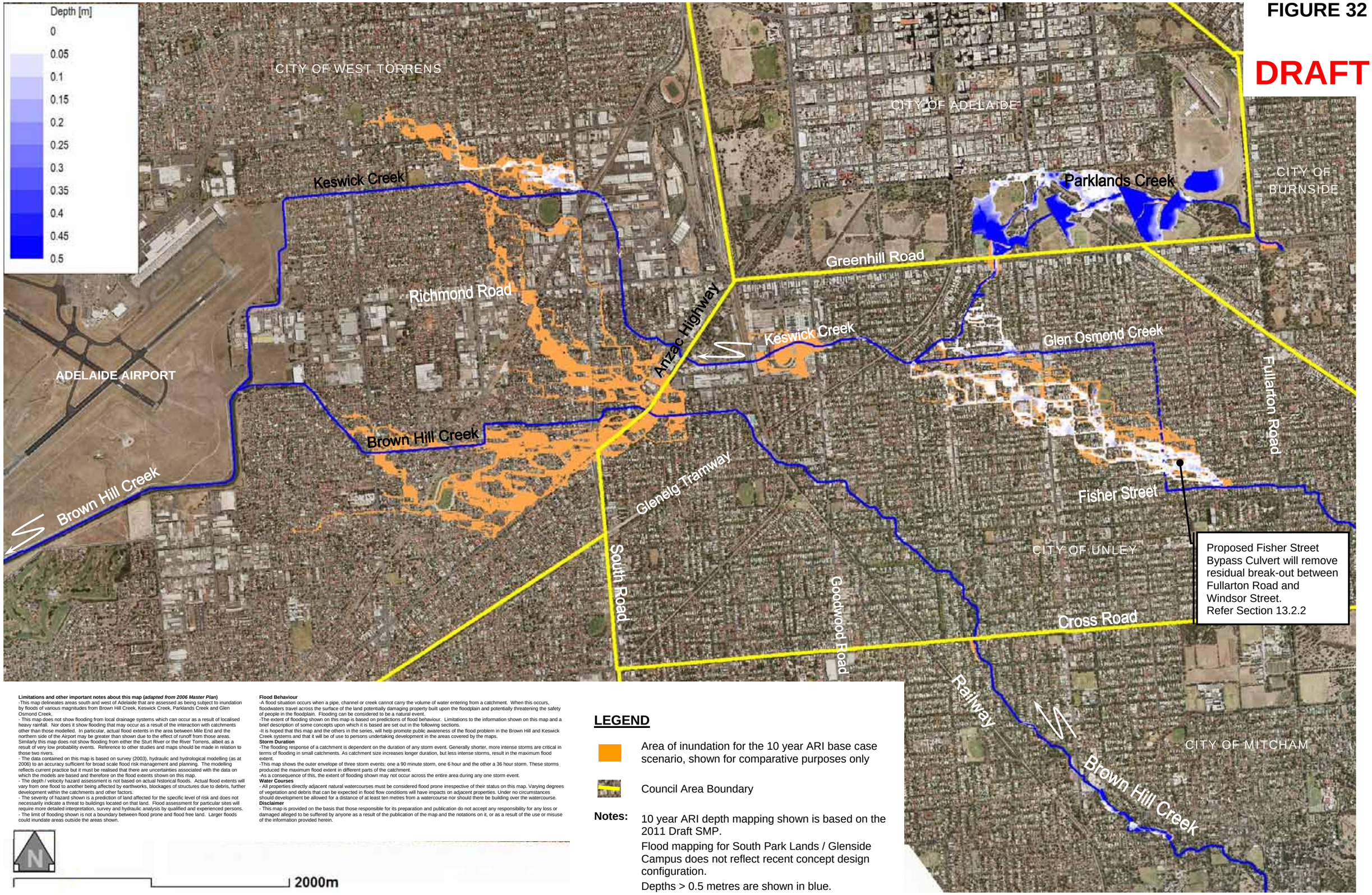
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_SMP20yrvsBaseCase.doc

20 YEAR ARI FLOOD MAPPING
[Based on 2011 Draft SMP – Whole of Catchment Works]

FIGURE 32

DRAFT



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N

2000m

LEGEND

Area of inundation for the 10 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:
10 year ARI depth mapping shown is based on the 2011 Draft SMP.
Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.
Depths > 0.5 metres are shown in blue.

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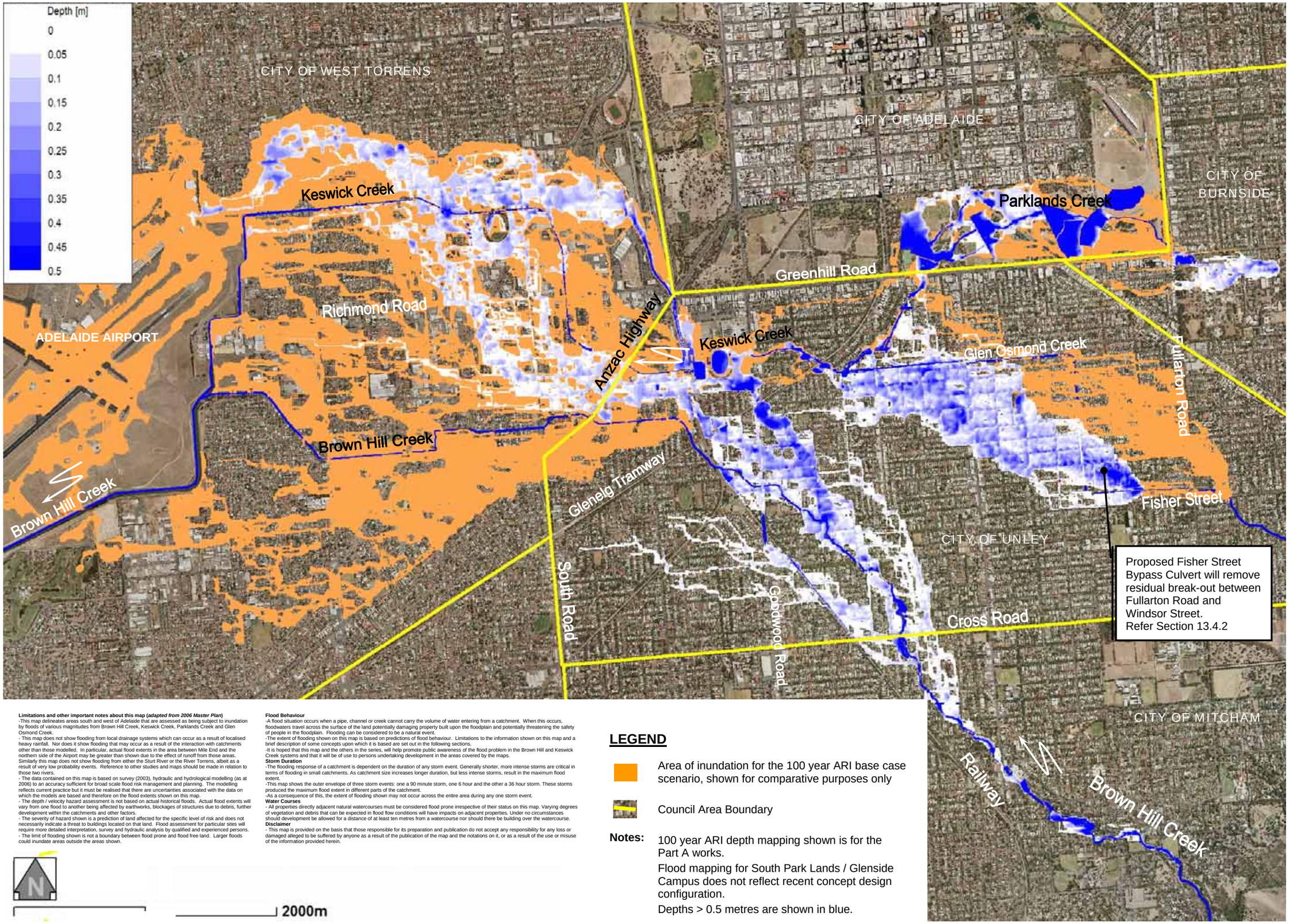
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-110802-fig_SMP10yrvsBaseCase.doc

10 YEAR ARI FLOOD MAPPING
[Based on 2011 Draft SMP – Whole of Catchment Works]

FIGURE 33

DRAFT



Limitations and other important notes about this map (*adapted from 2006 Master Plan*)

-This map delineates areas south and west of Adelaide that are assessed as being subject to inundation by floods of various magnitudes from Brown Hill Creek, Keswick Creek, Parklands Creek and Glen Osmond Creek.

- This map does not show flooding from local drainage systems which can occur as a result of localised heavy rainfall. Nor does it show flooding that may occur as a result of the interaction with catchments other than those modelled. In particular, actual flood extents in the area between Mile End and the northern side of the Airport may be greater than shown due to the effect of runoff from those areas. Similarly this map does not show flooding from either the Sturt River or the River Torrens, albeit as a result of very low probability events. Reference to other studies and maps should be made in relation to those two rivers.
- The data contained on this map is based on survey (2003), hydraulic and hydrological modelling (as at 2006) to an accuracy sufficient for broad scale flood risk management and planning. The modelling reflects current practice but it must be realised that there are uncertainties associated with the data on which the models are based and therefore on the flood extents shown on this map.
- The depth / velocity hazard assessment is not based on actual historical floods. Actual flood extents will vary from one flood to another being affected by earthworks, blockages of structures due to debris, further development within the catchments and other factors.
- The severity of hazard shown is a prediction of land affected for the specific level of risk and does not necessarily indicate a threat to buildings located on that land. Flood assessment for particular sites will require more detailed interpretation, survey and hydraulic analysis by qualified and experienced persons.
- The limit of flooding shown is not a boundary between flood prone and flood free land. Larger floods could inundate areas outside the areas shown.

Flood Behaviour

-A flood situation occurs when a pipe, channel or creek cannot carry the volume of water entering from a catchment. When this occurs, floodwaters travel across the surface of the land potentially damaging property built upon the floodplain and potentially threatening the safety of people in the floodplain. Flooding can be considered to be a natural event.

-The extent of flooding shown on this map is based on predictions of flood behaviour. Limitations to the information shown on this map and a brief description of some concepts upon which it is based are set out in the following sections.

-It is hoped that this map and the others in the series, will help promote public awareness of the flood problem in the Brown Hill and Keswick Creek systems and that it will be of use to persons undertaking development in the areas covered by the maps.

Storm Duration

-The flooding response of a catchment is dependent on the duration of any storm event. Generally shorter, more intense storms are critical in terms of flooding in small catchments. As catchment size increases longer duration, but less intense storms, result in the maximum flood extent.

-This map shows the outer envelope of three storm events: one a 90 minute storm, one 6 hour and the other a 36 hour storm. These storms produced the maximum flood extent in different parts of the catchment.

-As a consequence of this, the extent of flooding shown may not occur across the entire area during any one storm event.

Water Courses

- All properties directly adjacent natural watercourses must be considered flood prone irrespective of their status on this map. Varying degrees of vegetation and debris that can be expected in flood flow conditions will have impacts on adjacent properties. Under no circumstances should development be allowed for a distance of at least ten metres from a watercourse nor should there be building over the watercourse.

Disclaimer

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LEGEND

Area of inundation for the 100 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

100 year ARI depth mapping shown is for the Part A works.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

N

2000m

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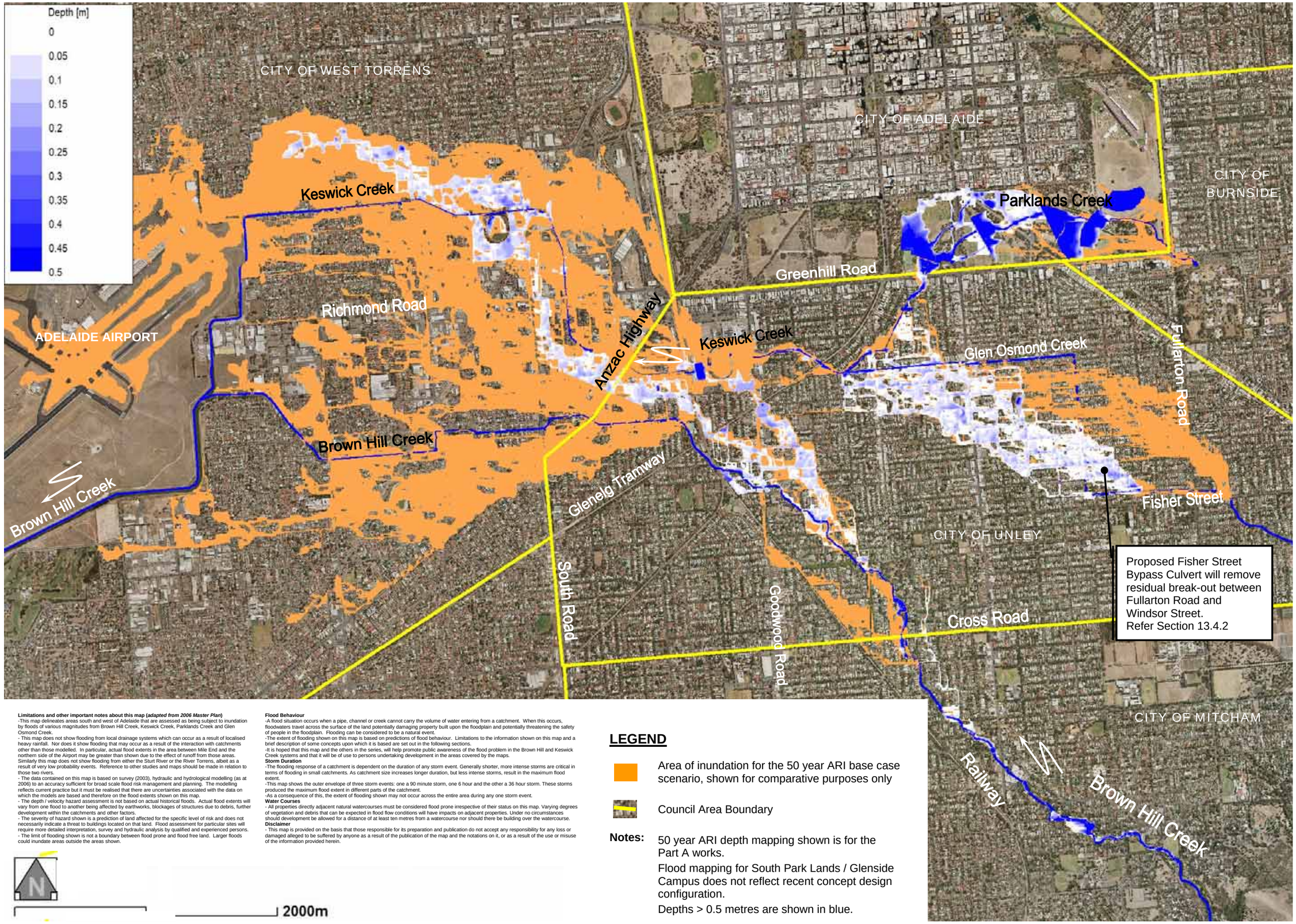
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120704-fig_PartA100yrvsBaseCase.doc

100 YEAR ARI FLOOD MAPPING FOR PART A FLOOD MITIGATION WORKS

FIGURE 34

DRAFT



Limitations and other important notes about this map (*adapted from 2006 Master Plan*)
-This map delineates areas south and west of Adelaide that are assessed as being subject to inundation by floods of various magnitudes from Brown Hill Creek, Keswick Creek, Parklands Creek and Glen Osmond Creek.
- This map does not show flooding from local drainage systems which can occur as a result of localised heavy rainfall. Nor does it show flooding that may occur as a result of the interaction with catchments other than those modelled. In particular, actual flood extents in the area between Mile End and the northern side of the Airport may be greater than shown due to the effect of runoff from those areas. Similarly this map does not show flooding from either the Sturt River or the River Torrens, albeit as a result of very low probability events. Reference to other studies and maps should be made in relation to those two rivers.
- The data contained on this map is based on survey (2003), hydraulic and hydrological modelling (as at 2006) to an accuracy sufficient for broad scale flood risk management and planning. The modelling reflects current practice but it must be realised that there are uncertainties associated with the data on which the models are based and therefore on the flood extents shown on this map.
- The depth / velocity hazard assessment is not based on actual historical floods. Actual flood extents will vary from one flood to another being affected by earthworks, blockages of structures due to debris, further development within the catchments and other factors.
- The severity of hazard shown is a prediction of land affected for the specific level of risk and does not necessarily indicate a threat to buildings located on that land. Flood assessment for particular sites will require more detailed interpretation, survey and hydraulic analysis by qualified and experienced persons.
- The limit of flooding shown is not a boundary between flood prone and flood free land. Larger floods could inundate areas outside the areas shown.

Flood Behaviour
-A flood situation occurs when a pipe, channel or creek cannot carry the volume of water entering from a catchment. When this occurs, floodwaters travel across the surface of the land potentially damaging property built upon the floodplain and potentially threatening the safety of people in the floodplain. Flooding can be considered to be a natural event.
-The extent of flooding shown on this map is based on predictions of flood behaviour. Limitations to the information shown on this map and a brief description of some concepts upon which it is based are set out in the following sections.
-It is hoped that this map and the others in the series, will help promote public awareness of the flood problem in the Brown Hill and Keswick Creek systems and that it will be of use to persons undertaking development in the areas covered by the maps.
Storm Duration
-The flooding response of a catchment is dependent on the duration of any storm event. Generally shorter, more intense storms are critical in terms of flooding in small catchments. As catchment size increases longer duration, but less intense storms, result in the maximum flood extent.
-This map shows the outer envelope of three storm events: one a 90 minute storm, one 6 hour and the other a 36 hour storm. These storms produced the maximum flood extent in different parts of the catchment.
-As a consequence of this, the extent of flooding shown may not occur across the entire area during any one storm event.
Water Courses
- All properties directly adjacent natural watercourses must be considered flood prone irrespective of their status on this map. Varying degrees of vegetation and debris that can be expected in flood flow conditions will have impacts on adjacent properties. Under no circumstances should development be allowed for a distance of at least ten metres from a watercourse nor should there be building over the watercourse.
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N

2000m

LEGEND

Area of inundation for the 50 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

50 year ARI depth mapping shown is for the Part A works.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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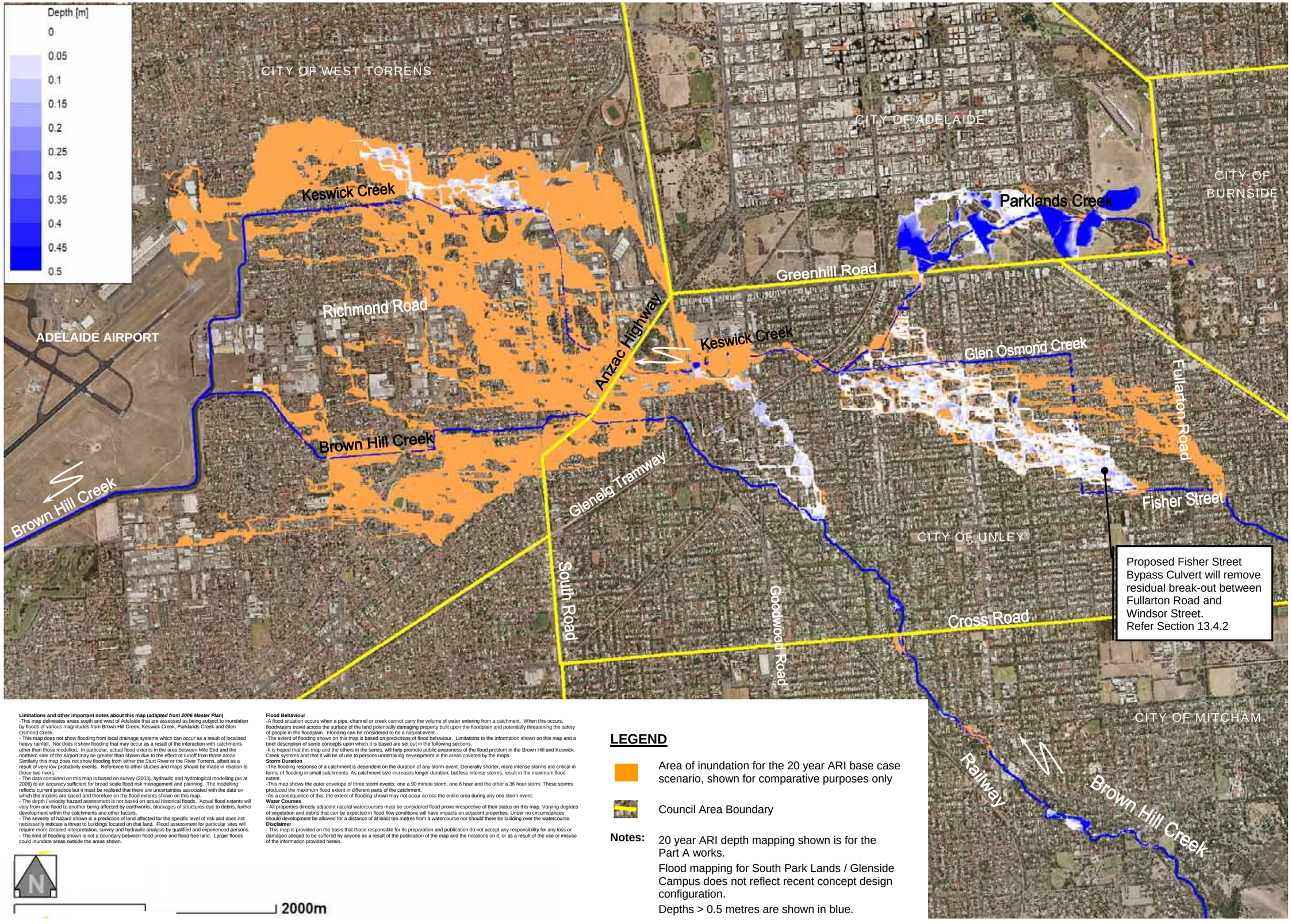
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120724-fig_PartA50yrvsBaseCase.doc

50 YEAR ARI FLOOD MAPPING FOR PART A FLOOD MITIGATION WORKS

FIGURE 35

DRAFT



Limitations and other important notes about this map (*adapted from 2006 Master Plan*)
-This map delineates areas south and west of Adelaide that are assessed as being subject to inundation by floods of various magnitudes from Brown Hill Creek, Keswick Creek, Parklands Creek and Glen Osmond Creek.
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Flood Behaviour
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-The flooding response of a catchment is dependent on the duration of any storm event. Generally shorter, more intense storms are critical in terms of flooding in small catchments. As catchment size increases longer duration, but less intense storms, result in the maximum flood extent.
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N

2000m

LEGEND

Area of inundation for the 20 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

20 year ARI depth mapping shown is for the Part A works.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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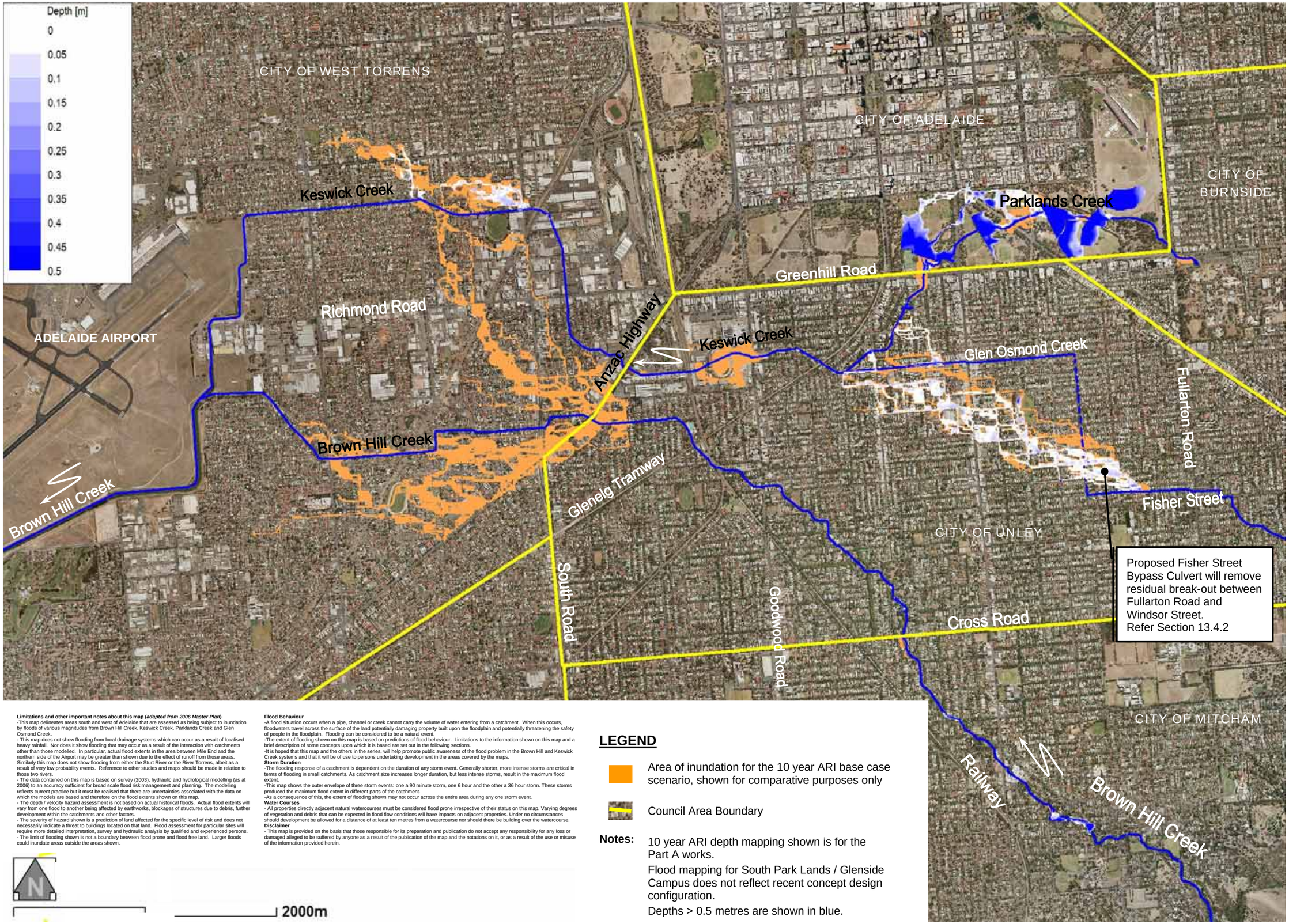
Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120724-fig_PartA20yrvsBaseCase.doc

20 YEAR ARI FLOOD MAPPING FOR PART A FLOOD MITIGATION WORKS

FIGURE 36

DRAFT



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LEGEND

Area of inundation for the 10 year ARI base case scenario, shown for comparative purposes only

Council Area Boundary

Notes:

10 year ARI depth mapping shown is for the Part A works.

Flood mapping for South Park Lands / Glenside Campus does not reflect recent concept design configuration.

Depths > 0.5 metres are shown in blue.

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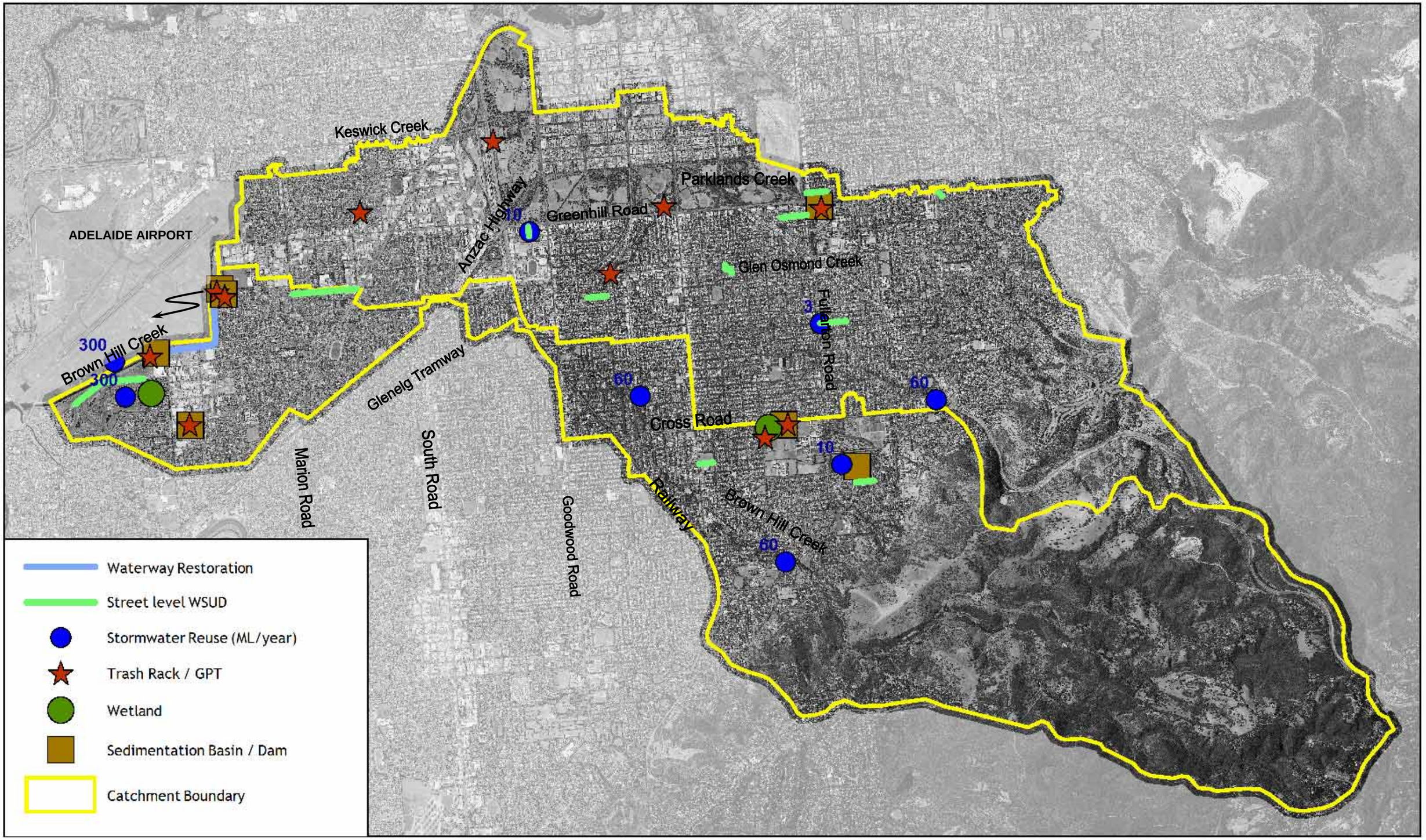
fg301015-02356-120724-fig_PartA10yrvsBaseCase.doc

10 YEAR ARI FLOOD MAPPING FOR PART A FLOOD MITIGATION WORKS

DRAFT



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Rp301015-02356 – Brown Hill Keswick Creek SMP
fg301015-02356-120719-fig_WSUD.doc

EXISTING WATER SENSITIVE URBAN DESIGN MEASURES