Appendix D

Climate change and extreme event flood maps for Clarence River regional floodplain

Clarence River Regional Model
Flood Level Difference (Climate Change)
Map ID: D001
Portion/Section: A/4
Design Case: PC_CLAR_DD200_E14_Q20CC
Existing Case: PC_MOD_CLA_E14_Q20CC
Event: 20 Year 72 Hour
Model Name: Clarence River
Modellers: Pacific Complete
Stage: Issued for Construction
Date: 13/12/2020

N

83100
82800
82500
82200
81900
81600
81300
81000
80700
A36 Edwards Creek
80400
80100
79800
A53
79500
79200
78900
78600
78300
78000
77700
77400
77100
76800
76500
76200
75900
75600
A34 Shark Creek Crossing
75300
75000
74700
74400
74100
A33 Lees Drain
73800
73500
73200
72900
72600
72300
72000
71700
71400
71100
A31 Crackers Drain
69600
69900
70200
70500
70800
69300

0 1 2 3 km

PACIFIC COMPLETE

Legend

- Main Alignment (chainage week 20)
- Future Bridges
- Future Culverts
- Modified Existing Culverts
- Maclean Levee
- Permanent Mounds
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Level Difference

- Less than -75 mm
- -75 to -50 mm
- -50 to -25 mm
- -25 to -5 mm
- -5 to 5 mm
- 5 to 25 mm
- 25 to 50 mm
- 50 to 75 mm
- 75 to 150 mm
- More than 150 mm
- Area is newly dry
- Area is newly wet

Clarence River Regional Model
Flood Level Difference (Climate Change)
Map ID: D002
Portion/Section: A/4
Design Case: PC_CLAR_DD200_E14_Q100CC
Existing Case: PC_MOD_CLA_E14_Q100CC
Event: 100 Year 72 Hour
Model Name: Clarence River
Modellers: Pacific Complete
Stage: Issued for Construction
Date: 13/12/2020

N

83100
82800
82500
82200
81900
81600
81300
81000
80700
A36 Edwards Creek
80400
80100
79800
A53
79500
79200
78900
78600
78300
78000
77700
77400
77100
76800
76500
76200
75900
75600
A34 Shark Creek Crossing
75300
75000
74700
74400
74100
A33 Lees Drain
73800
73500
73200
72900
72600
72300
72000
71700
71400
71100
A31 Crackers Drain
69600
69900
70200
70500
70800
69300

0 1 2 3 km

PACIFIC COMPLETE

Legend

- Main Alignment (chainage week 20)
- Future Bridges
- Future Culverts
- Modified Existing Culverts
- Maclean Levee
- Permanent Mounds
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Level Difference

- Less than -75 mm
- -75 to -50 mm
- -50 to -25 mm
- -25 to -5 mm
- -5 to 5 mm
- 5 to 25 mm
- 25 to 50 mm
- 50 to 75 mm
- 75 to 150 mm
- More than 150 mm
- Area is newly dry
- Area is newly wet

Clarence River Regional Model
Flood Level Difference (Climate Change)
Map ID: D003
Portion/Section: B/5
Design Case: PC_CLAR_DD200_E14_Q20CC
Existing Case: PC_MOD_CLA_E14_Q20CC
Event: 20 Year 72 Hour
Model Name: Clarence River
Modellers: Pacific Complete
Stage: Issued for Construction
Date: 13/12/2020

N

95700
95400
95100
94800
94500
94200
93900
93600
93300
93000
92700
92400
92100
91800
91500
91200
90900
90600
90300
90000
89700
89400
89100
88800
88500
88200
87900
87600
87300
87000
86700
86400
86100
85800
85500
85200
84900
84600
84300
84000
83700
83400
83100

B68
B08 North Arm
B07
B67
B66
B65
B64
B63
B62
B61
B60
B59
B04 Serpentine Channel
B56
B55
B52
Harwood Bridge
B02

0 1 2 3 km

PACIFIC COMPLETE

Legend

- Main Alignment (chainage week 20)
- Future Bridges
- Future Culverts
- Modified Existing Culverts
- Maclean Levee
- Permanent Mounds
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Level Difference

- Less than -75 mm
- -75 to -50 mm
- -50 to -25 mm
- -25 to -5 mm
- -5 to 5 mm
- 5 to 25 mm
- 25 to 50 mm
- 50 to 75 mm
- 75 to 150 mm
- More than 150 mm
- Area is newly dry
- Area is newly wet

Clarence River Regional Model
Flood Level Difference (Climate Change)
Map ID: D004
Portion/Section: B/5
Design Case: PC_CLAR_DD200_E14_Q100CC
Existing Case: PC_MOD_CLA_E14_Q100CC
Event: 100 Year 72 Hour
Model Name: Clarence River
Modellers: Pacific Complete
Stage: Issued for Construction
Date: 13/12/2020

N

95700
95400
95100
94800
94500
94200
93900
93600
93300
93000
92700
92400
92100
91800
91500
91200
90900
90600
90300
90000
89700
89400
89100
88800
88500
88200
87900
87600
87300
87000
86700
86400
86100
85800
85500
85200
84900
84600
84300
84000
83700
83400
83100

B68
B08 North Arm
B07
B67
B66
B65
B64
B63
B62
B61
B60
B59
B04 Serpentine Channel
B56
B55
B52
Harwood Bridge
B02

0 1 2 3 km

PACIFIC COMPLETE

Legend

- Main Alignment (chainage week 20)
- Future Bridges
- Future Culverts
- Modified Existing Culverts
- Maclean Levee
- Permanent Mounds
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Level Difference

- Less than -75 mm
- -75 to -50 mm
- -50 to -25 mm
- -25 to -5 mm
- -5 to 5 mm
- 5 to 25 mm
- 25 to 50 mm
- 50 to 75 mm
- 75 to 150 mm
- More than 150 mm
- Area is newly dry
- Area is newly wet

Clarence River Regional Model
Existing Flood Depth (PMF)
Map ID: D005
Portion/Section: A/4
Existing Case: PC_MOD_CLA_EXG_QPMF_E14
Event: Probable Maximum Flood
Model Name: Clarence River
Modellers: Pacific Complete
Date: 13/12/2020

N

83250
83100
82950
82800
82650
82500
82350
82200
82050
81900
81750
81600
81450
81300
81150
81000
80850
80700
80550
80400
80250
80100
79950
79800
79650
79500
79350
79200
79050
78900
78750
78600
78450
78300
78150
78000
77850
77700
77550
77400
77250
77100
76950
76800
76650
76500
76350
76200
76050
75900
75750
75600
75450
75300
75150
75000
74850
74700
74550
74400
74250
74100
73950
73800
73650
73500
73350
73200
73050
72900
72750
72450
72150
71850
71550
71250
70800
70500
70200
69900
69600

Legend

- Main Alignment (chainage week 20)
- Maclean Levee
- Existing Bridges
- Existing Culverts
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Depth (m)

- 0.5 or less
- 0.5 to 1.0
- 1.0 to 1.5
- 1.5 to 2.0
- 2.0 to 2.5
- 2.5 to 3.0
- 3.0 to 3.5
- 3.5 to 4.0
- 4.0 to 4.5
- 4.5 to 5.0
- 5.0 to 5.5
- 5.5 and above

0 1 2 3 km

PACIFIC COMPLETE

Clarence River Regional Model
Existing Flood Depth (PMF)
Map ID: D006
Portion/Section: B/5
Existing Case: PC_MOD_CLA_EXG_QPMF_E14
Event: Probable Maximum Flood
Model Name: Clarence River
Modellers: Pacific Complete
Date: 13/12/2020

N

95700
95550
95400
95250
95100
94950
94800
94650
94500
94350
94200
94050
93900
93750
93600
93450
93300
93150
93000
92850
92700
92550
92400
92250
92100
91950
91800
91650
91500
91350
91200
91050
90900
90750
90600
90450
90300
90150
90000
89850
89700
89550
89400
89250
89100
88950
88800
88650
88500
88350
88200
88050
87900
87750
87600
87450
87300
87150
87000
86850
86700
86550
86400
86250
86100
85950
85800
85650
85500
85350
85200
84900
84600
84300
84000
83700
83400
83250
83100
82950
82800
82650

0 1 2 3 km

PACIFIC COMPLETE

Legend

- Main Alignment (chainage week 20)
- Maclean Levee
- Existing Bridges
- Existing Culverts
- Permanent Earthworks
- Project Boundary
- Property Boundaries

Flood Depth (m)

- 0.5 or less
- 0.5 to 1.0
- 1.0 to 1.5
- 1.5 to 2.0
- 2.0 to 2.5
- 2.5 to 3.0
- 3.0 to 3.5
- 3.5 to 4.0
- 4.0 to 4.5
- 4.5 to 5.0
- 5.0 to 5.5
- 5.5 and above