

Fact Sheet

Gin Gin Local Drainage Upgrades – Proposed Dear St Drainage Works

Description of existing issue

Dear Street east of Mulgrave Street is a drainage area of interest that was highlighted and confirmed through the Kolan River and Gin Gin Creek Flood Study (GHD, 2014).

Properties on either side of Dear Street have the potential to experience shallow overland flow flooding following very intense rainfall. An upstream catchment conveys overland flow towards the intersection of Dear Street and Mulgrave Street following very intense rainfall. As there is currently no piped stormwater drainage in Dear Street and the adjacent properties are at approximately the same level as the road, this water is conveyed as overland flow towards the north-east through both the road and the adjoining properties.

Flood depths within the private properties adjacent to Dear Street in the existing 1% AEP overland flow flood event range between 0.05 m and 0.3 m; with peak velocities of approximately 1.3 m/s (most velocities are in the range of 0.3 – 0.5 m/s). The flooding within these private properties is classified as “low hazard” with respect to the QRA flood hazard categories outlined in the Kolan River and Gin Gin Creek Flood Study (GHD 2014).

Proposed drainage improvements

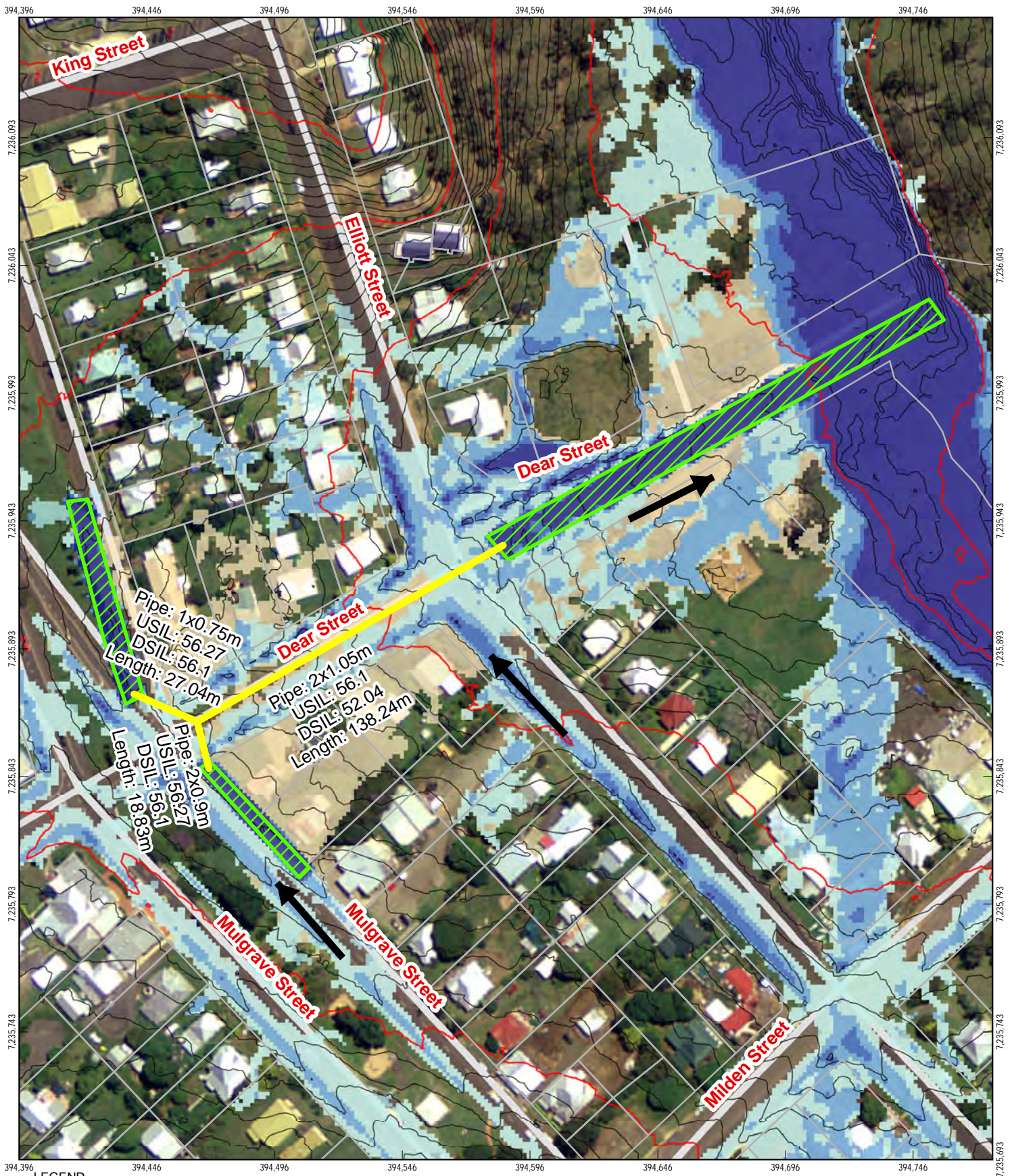
The conceptual upgrade shown on the following page includes the installation of 2 x 1050 mm diameter stormwater pipes (total length of ~140 m) along the centreline of Dear Street, discharging to a new table drain (approximately 1.5 m maximum depth) in the unformed part of Dear Street east of Elliott Street. This drain discharges to the waterway at the eastern end of Dear Street. Two new table drains on the eastern side of Mulgrave Street are proposed to capture the overland flow within two sets of stormwater pipes (2 x 900 mm pipes to the south of Dear Street and 1 x 750 mm pipe to the north) that feed into the main 2 x 1050 mm diameter trunk lines. Scour protection works will be required at the inlets and outlets of the stormwater pipes.

Preliminary hydraulic modelling of the upgrade shows that the works would be successful in eliminating the overland flow issue in the private properties on Dear Street between Mulgrave Street and Elliott Street.

Where to from here?

A component of the Floodplain Risk Management Study is to highlight drainage investigation areas for Council consideration. This local drainage area will be reviewed as part of Councils future capital works program for major drainage upgrades. Part of this review includes a merit based assessment and prioritisation against other drainage projects in the region for Council to consider in future budgets. Further detailed design work would then be required to refine and optimise any upgrade.





LEGEND

- Road
- Contour
- Index Contour
- Proposed Drainage Upgrades - Pipe
- Proposed Drainage Upgrade - Table Drains
- Property Boundary
- Pre-Upgrade 1% AEP Overland Flow Extent (60-Minute Duration)
- Flow Direction
- Post-Upgrade 1% AEP Overland Flow Depth
 - 0 - 0.1
 - 0.1 - 0.2
 - 0.2 - 0.3
 - > 0.3

1:2,000 @A4
 0 25 50 Metres
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 56

GHD **BUNDABERG REGIONAL COUNCIL**

Bundaberg Regional Council
 Kolan River and Gin Gin Creek
 Floodplain Risk Management Study

Proposed Dear Street Drainage Works

Job Number: 41-27710
 Revision: A
 Date: 15 Jul 2014

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