

Fact Sheet

Area for Further Investigation – High School Road

Description of existing issue

An undeveloped catchment of approximately 3.9 ha to the north of High School Road currently conveys surface runoff to a table drain and levee on the northern side of the road. This drain and levee directs some surface runoff to the west, where overland flow is conveyed by a single 900 mm diameter stormwater pipe under the irrigation channel. From here, flow is conveyed along a table drain on the northern side of Bundaberg-Gin Gin Road and then crosses Mill Street to connect to the main waterway.

Flows in excess of the capacity of the High School Road levee and drain overtop High School Road and flow to the south-west through parts of some properties (refer to figure on next page). This portion of the flow then enters the golf course and continues flowing towards the east. The 1% AEP flow through these private properties (peak flow rate of approximately 1.3 m³/s) is mostly shallow (maximum depth of 0.2 m) and relatively slow (less than 1 m/s), with some concentration and intensification of the flow occurring at the access handle to Hazenberg Park (maximum depth of 0.35 m and maximum velocity of 1.4 m/s). This sheet flow is classified as a “low” level of flood hazard during the 1% AEP event based on the QRA flood hazard categories outlined in the Kolan River and Gin Gin Creek Flood Study (GHD 2014).

Proposed drainage improvements

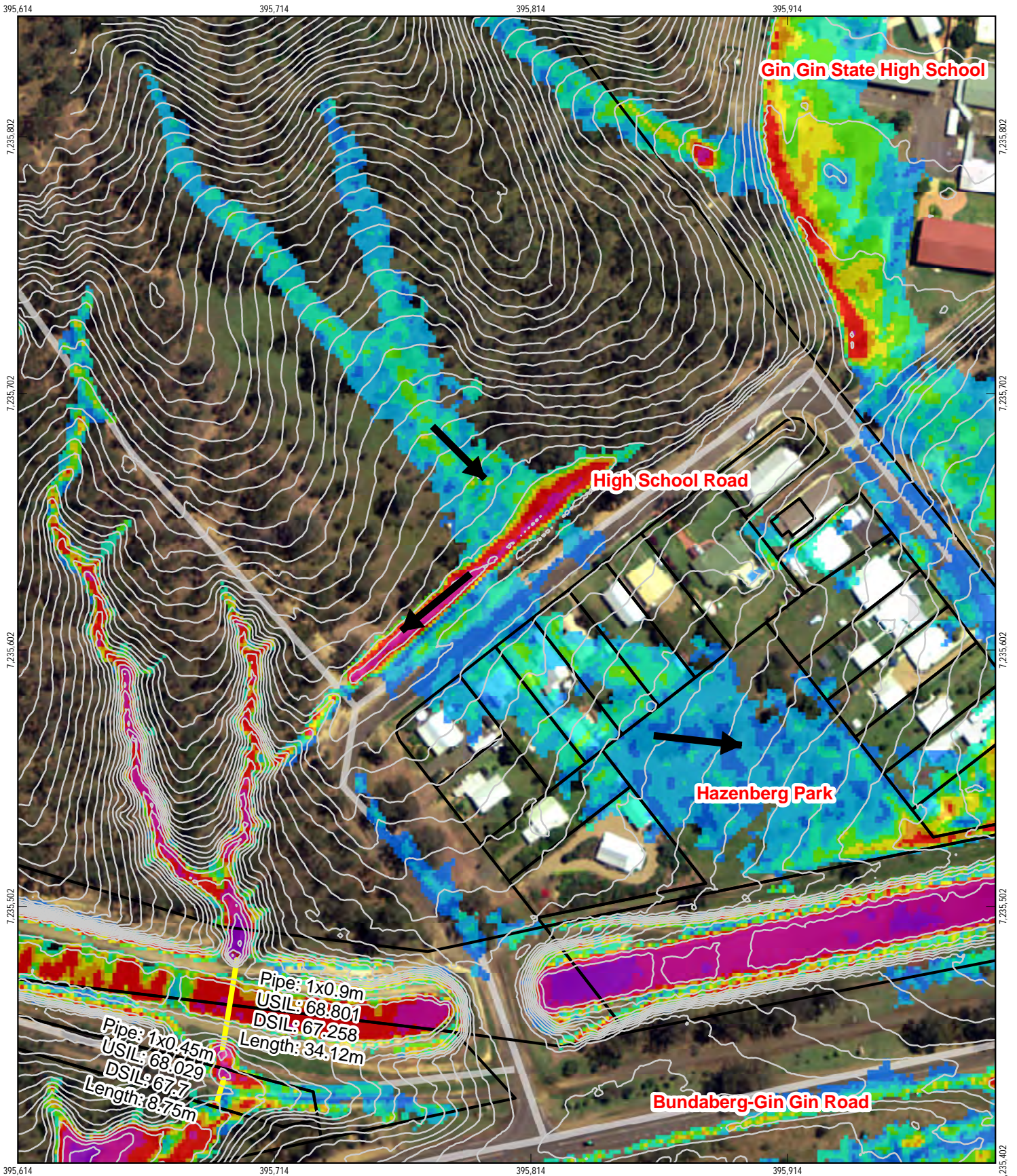
It is recommended that the overland flow flooding issues at High School Road are further investigated to determine the most appropriate action. The following commentary is made with respect to any further investigations:

- Test a range of scenarios for deepening and widening the table drain, or raising the existing bund, in order to identify the necessary infrastructure dimensions to protect properties along High School Road from overland flow flooding by diverting additional flow to the west.
- Carefully review any adverse impacts that arise from the diversion of additional flow to the west. If adverse impacts (particularly in terms of peak flood levels or increased potential for erosion and scour) are identified, consider potential mitigation options.
- Potential mitigation options may include detention basins located to the north of High School Road or at the inlet to the 900 mm culvert.

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.





<ul style="list-style-type: none"> Road Contour (0.5m) Existing Underground Piped Drainage 	<ul style="list-style-type: none"> Flow Direction Property Boundary 	<p>1% AEP Design Flood Event</p> <p>Peak Depth (m)</p> <ul style="list-style-type: none"> 0 - 0.05 0.05 - 0.1 0.1 - 0.15 0.15 - 0.2 0.2 - 0.25 0.25 - 0.3 0.3 - 0.5 0.5 - 1 1 - 2 >2 color swatch"/> >2
--	---	---

<p>1:2,000 @A4</p> <p>0 25 50</p> <p>Metres</p> <p>Map Projection: Transverse Mercator Horizontal Datum: GDA 1994 Grid: GDA 1994 MGA Zone 56</p>			<p>Bundaberg Regional Council Kolan River and Gin Gin Creek Floodplain Risk Management Study</p> <p>High School Road Residual Overland Flow Issues</p>	<table border="0"> <tr> <td>Job Number</td> <td>41-27710</td> </tr> <tr> <td>Revision</td> <td>A</td> </tr> <tr> <td>Date</td> <td>15 Jul 2014</td> </tr> </table>	Job Number	41-27710	Revision	A	Date	15 Jul 2014
Job Number	41-27710									
Revision	A									
Date	15 Jul 2014									