

Appendix A Option Details

A.1 Option Sizing Assumptions

- ASTR:
 - bore spacing 500m between injecting/extraction pairs
 - 1225m between injection and extraction bore
 - 3ML/day injection / extraction
 - Small injection storage tank required to buffer inflows
 - 50m deep bores for the Moray Street Gravels in the Port Melbourne area
 - 100m deep bores for Lower Tertiary Aquifer in the sandbelt area
 - Injection and extraction pump head of 65m
- Maximum hydraulic grade line of 1 in 300
- Maximum pump head of 185m
- Pre-Environmental Buffer Water Treatment Plant size is the same as the offtake pump capacity
- Post-Environmental Buffer Water Treatment Plant size based on delivering the 80th percentile yield over 12 months
- Minimum detention time in environmental buffer is 90 days.
- All pump stations have three duty one standby pump except 1000ml/day which has 4 duty and 1 standby, with variable speed drives.

A.2 Option Plans and Longitudinal Sections

- **Figure 6 Option 1a – Dights Falls to LWC**
- **Figure 7 Option 1a – Longitudinal Section**

- **Figure 8 Option 1b – Templestowe to LWC**
- **Figure 9 Option 1b – Longitudinal Section**

- **Figure 10 Option 1c – Warrandyte to LWC**
- **Figure 11 Option 1c – Longitudinal Section**

- **Figure 12 Option 1d – Dights Falls to Yering Gorge**
- **Figure 13 Option 1d – Longitudinal Section**

- **Figure 14 Option 1e – Dights Falls to ASTR**
- **Figure 15 Option 1e – Longitudinal Section**

- **Figure 16 Option 2a – Patterson River to Cardinia**
- **Figure 17 Option 2a – Longitudinal Section**

- **Figure 18 Option 2b – Patterson River to ASTR**
- **Figure 19 Option 2b – Longitudinal Section**

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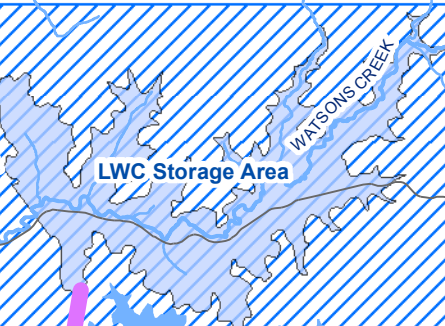
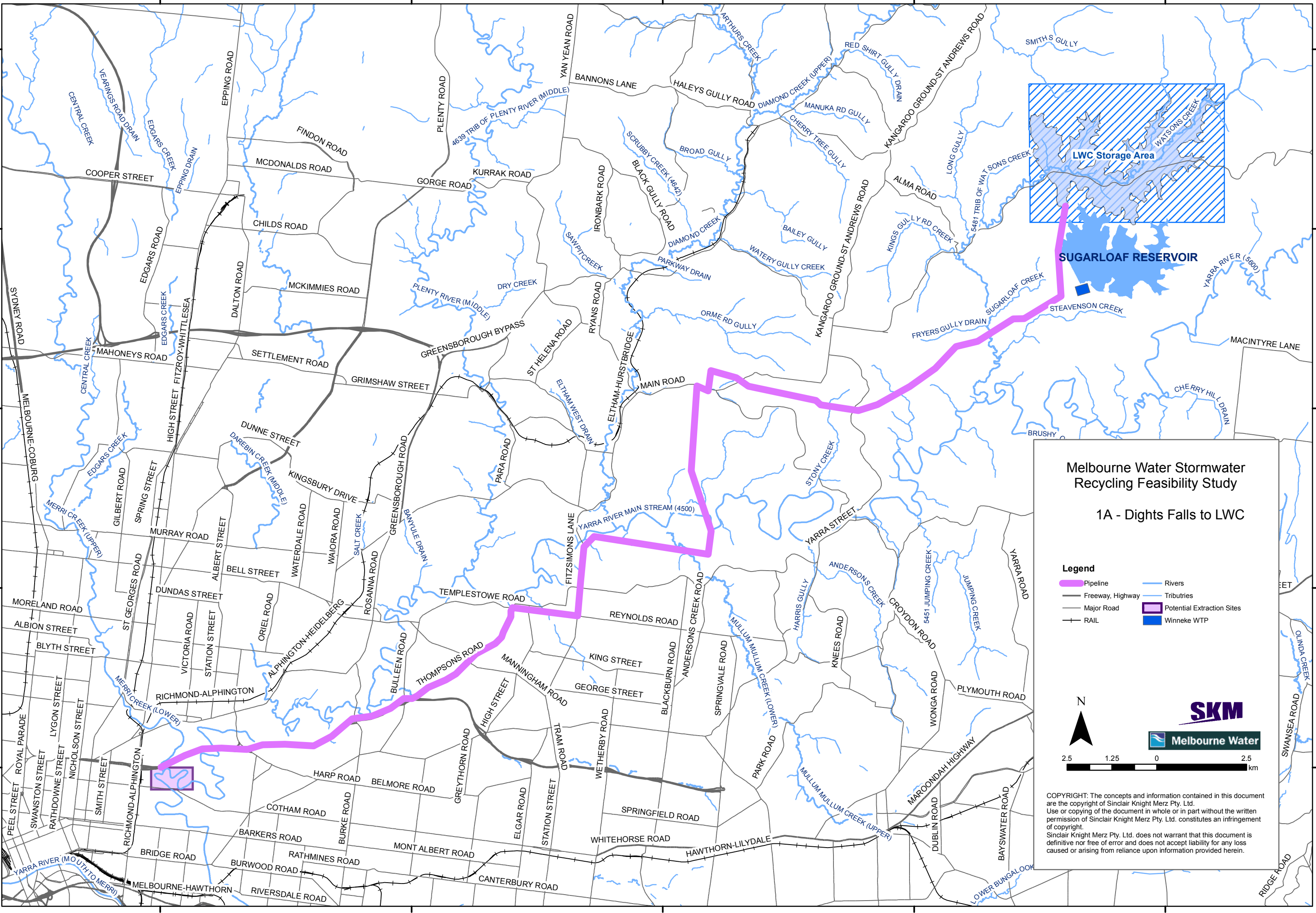
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Melbourne Water Stormwater Recycling Feasibility Study

1A - Dights Falls to LWC

Legend

- Pipeline
- Freeway, Highway
- Major Road
- RAIL
- Rivers
- Tributies
- Potential Extraction Sites
- Winkeke WTP

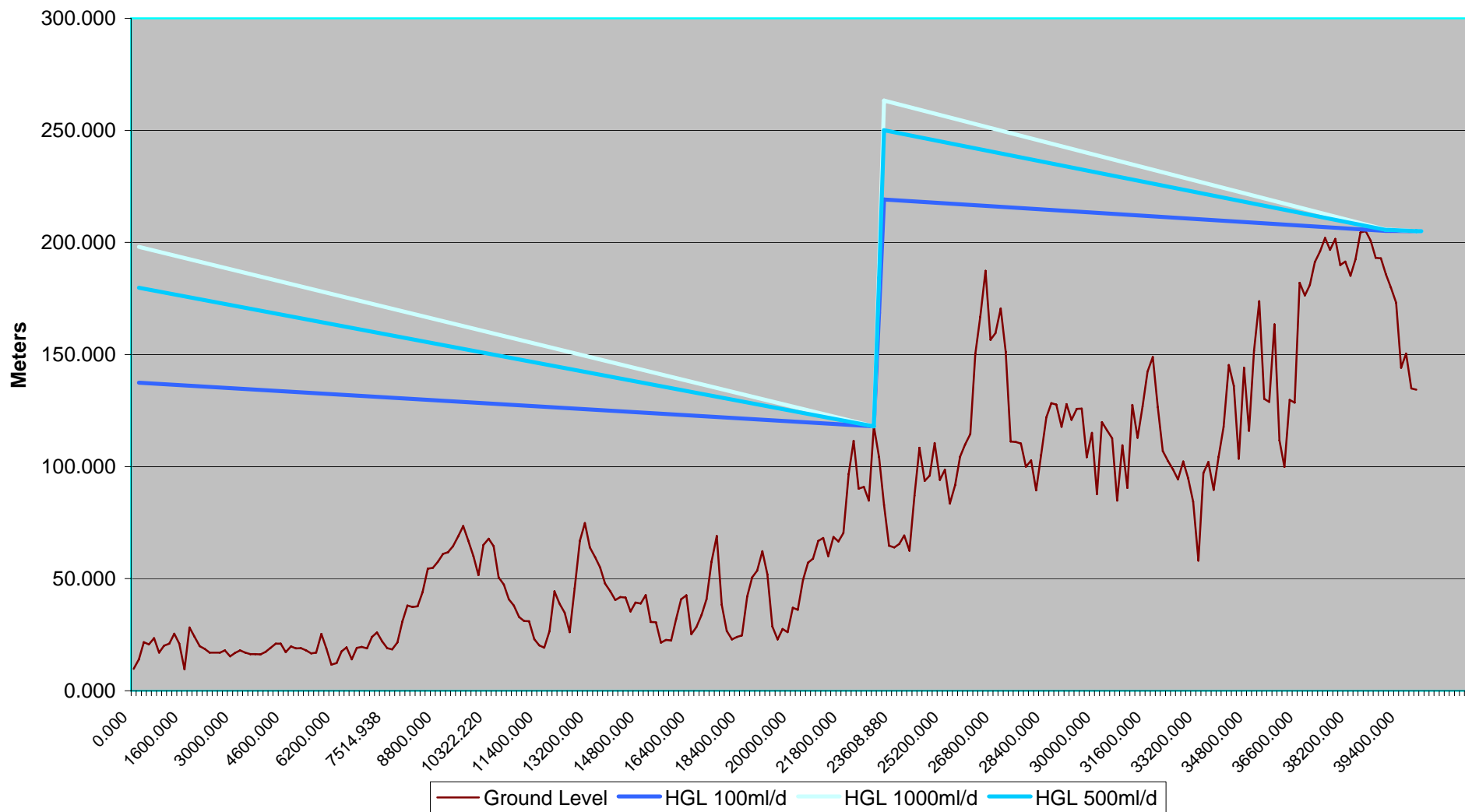
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Figure 13: Option1A - Dights Falls to LWC



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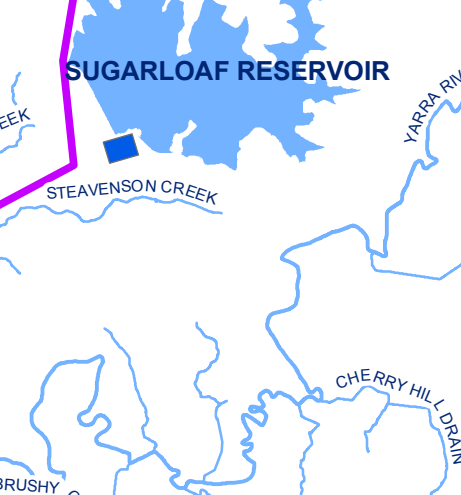
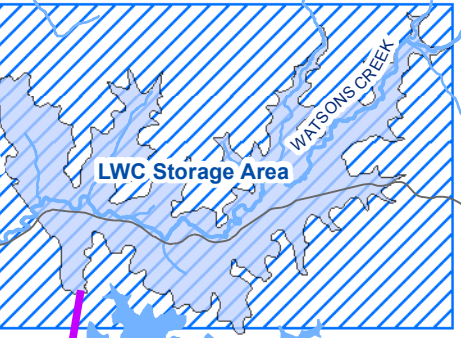
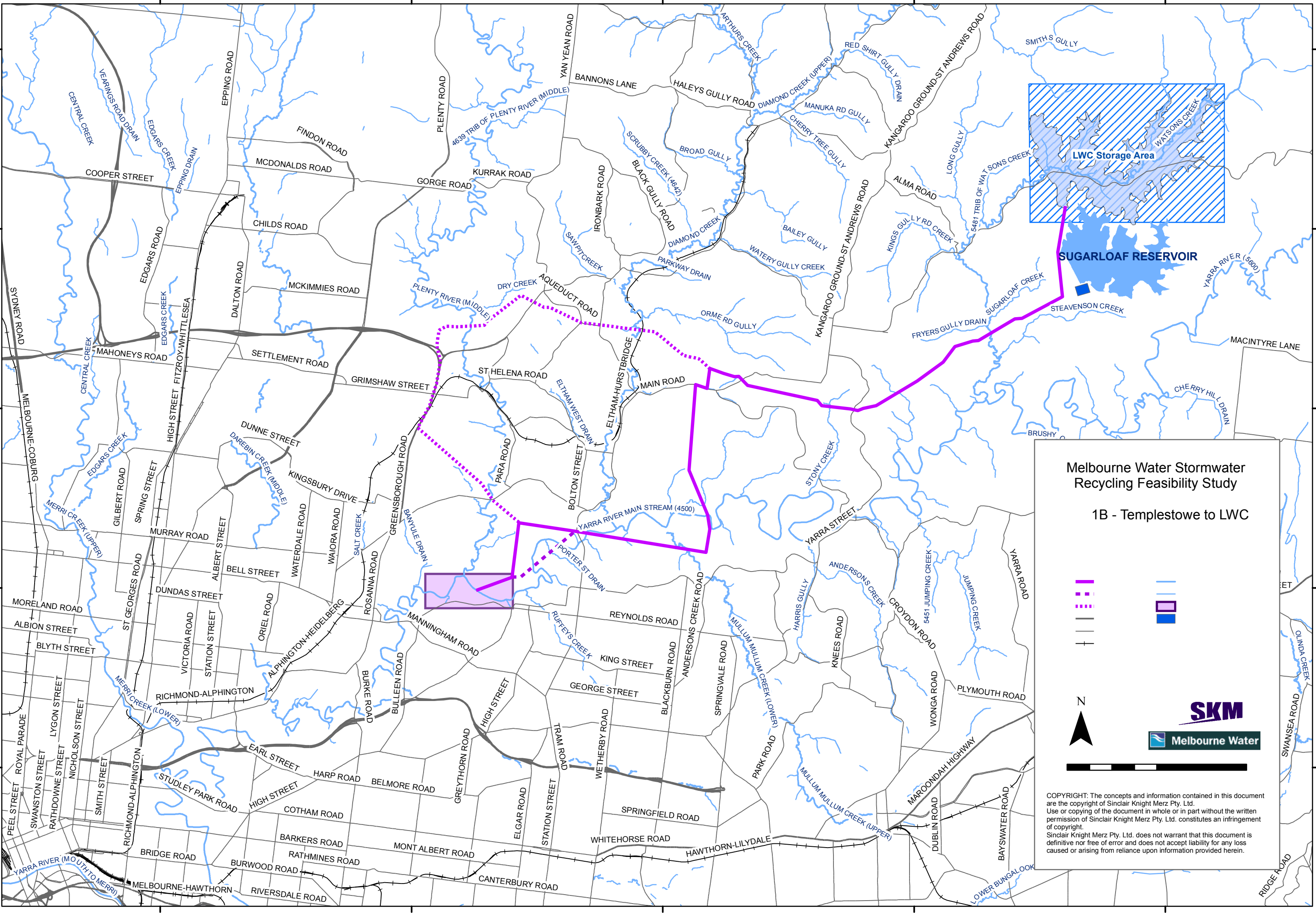
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Melbourne Water Stormwater Recycling Feasibility Study

1B - Templestowe to LWC

- Solid purple line: Main stormwater recycling route
- Dotted purple line: Alternative or secondary route
- Blue line: Yarra River Main Stream
- Blue line: Tributaries
- Blue square: LWC Storage Area
- Blue square: Sugarloaf Reservoir
- Black line with cross-ticks: Road
- Black line with cross-ticks: Railway
- North arrow: Orientation
- Scale bar: Distance measurement

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Figure 15: Option 1B - Templestowe to Little Watsons Creek

