EA APPLICATION SUPPORTING REPORT

SAVANNAH GOLDFIELDS LTD

Appendix 13 Flood Impact Assessment Review (ATC Williams, 2025)

ATC WILLIAMS PTY LTD
Maroochydore
t +61 7 5406 7000
Level 3, Suite 17,
14-20 Aerodrome Road,
Maroochydore, QLD, 4558
sunshinecoast@atcwilliams.com.au
atcwilliams.com.au
ABN 64 005 931 288

Our Ref: 250689 L01 Rev 1

31 October 2025

Savannah Goldfields Ltd

Level 21, Matisse Tower, 110 Mary Street,

Brisbane QLD 4000

ATTENTION: Rodney Cooper

Dear Rod,

SUBJECT: FLOOD IMPACT ASSESSMENT REVIEW FOR REVISED MINE PLAN

1 INTRODUCTION

In 2022, ATC Williams Pty Ltd (ATCW) developed a Flood Impact Assessment report (ATCW ref: 121208-01-FIA-R01-RevA **[1]**) to support an Environmental Authority (EA) amendment and Progressive Rehabilitation Closure Plan (PRCP) for the Agate Creek Gold Mine (ACGM or Project). Since then, Savannah Goldfields Limited (SVG) (previously Laneway Resources), who own and operate the site have revised the mine plan to alter locations of proposed open cut pits, Waste Rock Dump (WRD) landforms, and other general site features. SVG have engaged ATCW to review and update the existing engineering reports to reflect the new mine plan.

This letter outlines a review of the revised mine plan in relation to the flood model developed for ATCW's Flood Impact Assessment (FIA) report (reference 121208-01-FIA-R01-RevA dated July 2022 **[1]**). This is to confirm that the proposed key mine features such as the WRDs and Open Cut Pits are located outside of the 0.1% AEP Agate Creek floodplain.

2 BACKGROUND

ACGM is located approximately 40 kilometres (km) south-west of Forsayth in North Queensland. Proposed key site infrastructure to support mining operations includes multiple open cut pits, a Run of Mine (ROM) Pad, WRDs, mine infrastructure areas, and surface water management controls (diversion drains and sediment dams). SVG was granted mining lease (ML) 100030 on February 2019 and currently operates within Environmental Authority (EA) EPSL03068015.

SVG have developed a revised mine plan to that assessed in ATCW's 2022 FIA **[1]**. The revised mine plan comprises the following key features:

- Four open cut pits;
- Five WRDs;
- Multiple sediment ponds, and a larger Water Storage Dam;
- Run-of-Mine Pad;
- Associate civil infrastructure such as haul/access roads, drains etc.

ATCW have reviewed the past FIA report **[1]** and deemed the modelling is suitable to adopt in reviewing the revised mine development plan. Of note is that the past FIA was developed

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assuming the open cut pits will remain as voids and Non-use Mining Areas (NUMA) post-closure, however, the mine plan is to now backfill all pits. All final landforms including backfilled pits must be safe, stable, and cause no environmental harm as per the PRCP guidelines **[2]**.

3 PAST FLOOD MODELLING

The FIA **[1]** report was developed for the EA Amendment and PRCP application as the Agate Creek watercourse traverses through the Project's mine lease (ML100030). As part of the FIA a hydrologic and hydraulic model was developed for the Agate Creek catchment and validated against the downstream gauging station. The TUFLOW hydraulic model was set up over the site extents and the results demonstrated that the key mine features are outside of the estimated 0.1% AEP event floodplain extents, except for the existing haul road. The mine development therefore complied with the DETSI PRCP guidelines **[2]** in relation to the floodplain and mine land use areas. It was acknowledged that the further review of the existing haul road would be needed as the mine development design progresses.

4 REVIEW OF PROPOSED MINE PLAN

The revised mine plan features were overlayed with the 0.1% AEP flood model outputs from the 2022 FIA report **[1]**, as shown in the figures within **Attachment A**. The figures attached demonstrate that the proposed pits, WRDs, and final landforms are not impacted by events up to and including the 0.1% AEP event. The revised mine plan therefore achieves the PRCP guidelines **[2]** in relation to the Agate Creek floodplain for the proposed pits, WRDs and final landform, and no mitigation measures are required in relation to regional flood impact.

No further flood modelling is therefore deemed required, however during operations, SVG must consider the Agate Creek flooding and develop safety management plans and trigger response plans for haul road traffic that will traverse the creek (refer location shown in **Attachment A**). For example, haulage should only be allowed during dry weather and appropriate triggers (e.g. rainfall flow exceeding a nominated depth) are to be in place for traffic warnings and diversion/cessation of haulage. Following flow events in Agate Creek, the crossing should be inspected and checked for geotechnical stability before allowing haulage trucks to pass through.

If any changes or upgrades are proposed to the existing creek crossing the FIA should be reviewed to ensure design risks and any potential upstream or downstream flood impacts are understood.

Yours sincerely,

Matt Johnson

Senior Associate Engineer

MattJ@atcwilliams.com.au

ATC Williams Pty Ltd

Attachments:

1. Attachment A – Revised Mine Plan with Flood Figures (Peak 0.1% AEP Flood Depth, Peak 0.1% AEP Flood Velocity, and Peak 0.1% AEP Water Elevation)

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REFERENCES

[1] ATCW (2022), 'Agate Creek Gold Mine Flood Impact Assessment, Ref 121208-01-FIA-R01-RevA dated 27 July 2022.

[2] Department of Environment, Tourism, Science, and Innovation (2024), 'Progressive rehabilitation and closure plans (PRC plans)', Queensland Government.

ATTACHMENT A – REVISED MINE PLAN 0.1% AEP FLOOD FIGURES

TAILINGS.WATER.WASTE.

NW WRD
PIT 4
PIT 6 WRD
PIT 6
LOW GRADE WRD
PIT 2
PIT 1
PIT 1 WRD
SW WRD
Pit 1 EXT
ROM PAD
ROAD CROSSING

LEGEND

- MINE LEASE
- FINAL LANDFORM EXTENTS
- ELVIS CONTOURS 10m
- 0.1% AEP FLOODPLAIN EXTENTS

MAXIMUM WATER DEPTH (m)

- <= 1.00
- 1.00 - 2.00
- 2.00 - 3.00
- 3.00 - 4.00
- 4.00 - 5.00
- 5.00 - 6.00
- 6.00 - 7.00
- > 7.00

FIGURE 001

0.1% AEP Maximum Water Depth

Flood Modelling as per ATCW reference 121208-01-FIA-R01-RevA

AGATE CREEK GOLD MINE

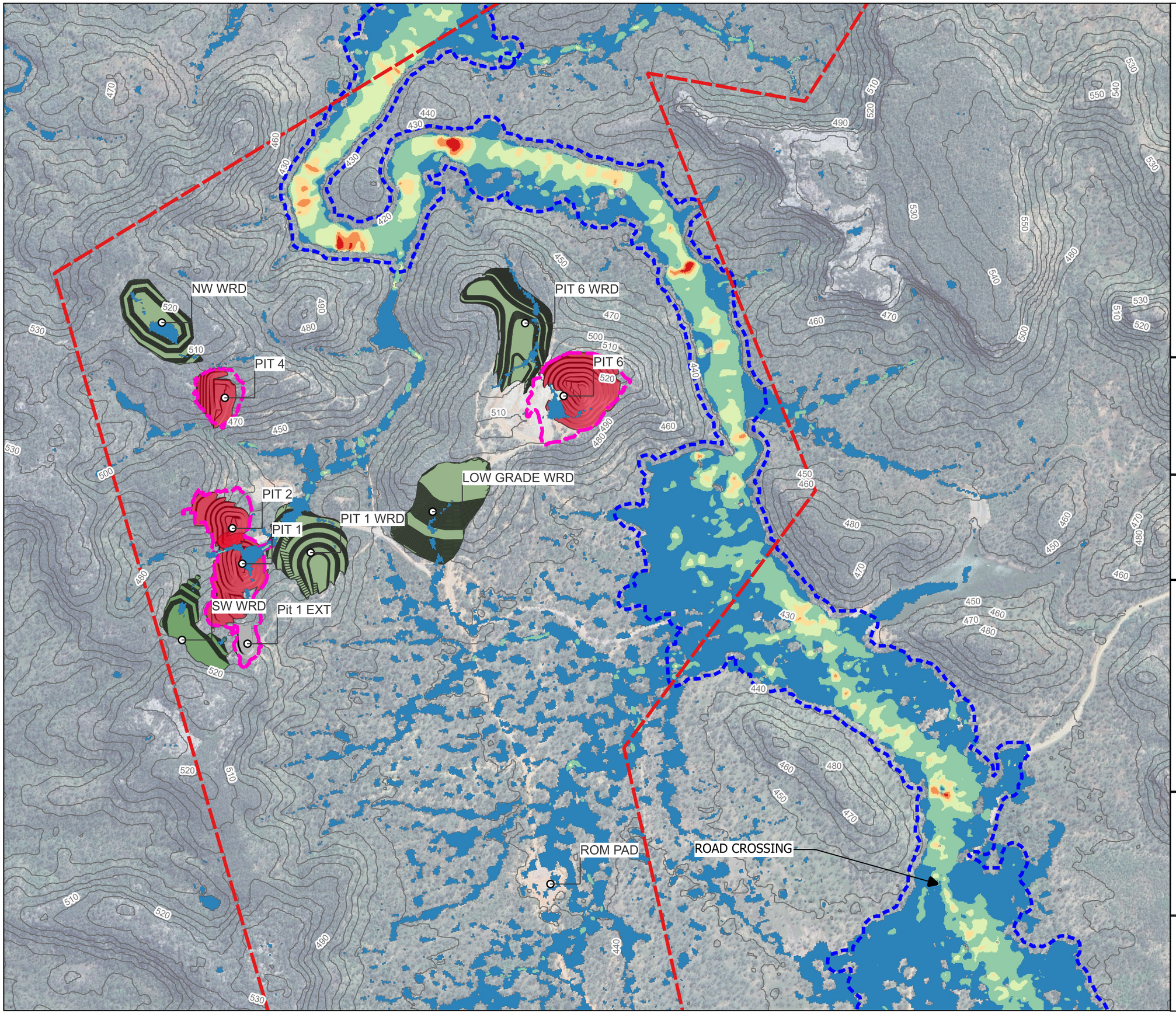
N

0 100 200 300 400 m

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REF: 121208 DATE:2025-10-31

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LEGEND

- MINE LEASE
- FINAL LANDFORM EXTENTS
- ELVIS CONTOURS 10m
- 0.1% AEP FLOODPLAIN EXTENTS

MAXIMUM VELOCITY (m/s)

Band 1

- <= 1.0
- 1.0 - 2.0
- 2.0 - 3.0
- 3.0 - 4.0
- 4.0 - 5.0
- > 5.0

FIGURE 002

0.1% AEP Maximum Velocity

Flood Modelling as per ATCW reference 121208-01-FIA-R01-RevA

AGATE CREEK GOLD MINE

N

0 100 200 300 400 m

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