

20 November 2020

Mr Stephen O'Donoghue  
Director – Resource Assessments  
Department of Planning, Industry and Environment  
Locked Bag 5022, Parramatta NSW 2124

**Re: McPhillamys Gold Project (SSD 9505) – Response to request for additional information**

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Dear Steve,

This letter provides a response to the request for additional information (RFI) from the NSW Department of Planning, Industry and Environment (DPIE), dated 27 October 2020, in relation to the McPhillamys Gold Project (the project). Each request is reproduced in the box and a response provided below.

**1. Aboriginal cultural heritage**

During the site visit Regis advised that further work was being undertaken including further advertising to seek interest for the Aboriginal community as Registered Aboriginal Parties (RAPs) and on scar tree assessment. Please provide clarification on these proposed activities and timing of completing these actions.
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**1.1. Consultation**

Consultation with the Aboriginal community commenced in 2016 for the project, as reported in the *Aboriginal and Historical Cultural Heritage Assessment* (Landskape 2019) prepared for the Environmental Impact Statement (EIS) (EMM 2019). As outlined in the *Addendum to the Aboriginal and Historical Cultural Heritage Assessment* (Landskape 2020) and *Addendum Aboriginal Cultural Heritage and Historic Heritage Assessment Report* (OzArk 2020), there has been ongoing consultation with the RAPs throughout the assessment process for the project.

On 10 November 2020, Heritage NSW provided the following relevant comment on the project:

*The Aboriginal cultural heritage assessment for the proposed McPhillamy's Gold Mine including modification, were assessed by the then, Biodiversity and Conservation Division (BCD). It was noted that the proposed mitigation measures to reduce harm to Aboriginal objects are adequate and proportionate to the type of objects and the land use disturbance history and that the assessment adequately complied with the Aboriginal consultation requirements.*

Following the recent amendment of the development application for the project and submission of the Amendment Report (EMM 2020a), Regis issued an additional public notice inviting any Aboriginal person who is not already a RAP for the project and who holds cultural knowledge relevant to determining the significance of Aboriginal objects or places in the area of the project, to register an interest in the ongoing consultation process. The purpose of this public notice was to ensure that any other Aboriginal persons (i.e. other than the existing RAPs) with relevant cultural knowledge who wish to have input on the assessment of the project, have the opportunity to do so.

This public notice was published on 27 October 2020 in the *Lithgow Mercury*, and on 29 October 2020 in the *Blayney Chronicle*, *Central Western Daily* and *Western Advocate*. The period for registrations closed on 18 November 2020.

Two new Aboriginal parties have registered an interest in response to this public notice. Following completion of the registration period, the new RAPs will be provided with an opportunity to review the existing Aboriginal cultural heritage assessment information and to provide any feedback/input.

A final Aboriginal cultural heritage assessment addendum report documenting the consultation with the new RAPs (and further consultation with the existing RAPs) is expected to be provided to DPIE/Independent Planning Commission (IPC) in the coming months.

## **1.2. Scar trees**

The *Preliminary Environmental Assessment* (R.W. Corkery & Co. Pty Limited 2018) for the project identified the potential for scar trees to be present in the project area. *The Aboriginal and Historical Cultural Heritage Assessment* (Landskape 2019) prepared for the project noted that Navin Officer inspected the trees with potential for scarring and considered that the identified scarring was not caused by Aboriginal people.

In subsequent consultation with the Aboriginal community, questions were raised about the possible presence of scar trees in the project area. In response, Regis has engaged experts in the identification of scar trees, to undertake a further assessment of the relevant trees to confirm whether or not the identified scars are of Aboriginal origin. The outcomes of this survey will also be documented in the above mentioned final Aboriginal cultural heritage assessment addendum report.

## **2. Land contamination**

The EIS (EMM 2019) prepared for the project concluded that there was no material evidence of widespread or significant contamination activities and/or contamination sources in the project area, and hence it was considered that the site is likely to be uncontaminated and thus suitable for the uses proposed.

Notwithstanding, consistent with the requirements of clause 7 of *State Environmental Planning Policy No 55 (Remediation of Land)*, Regis has commissioned a land contamination specialist (Ground Doctor Pty Ltd) to prepare a Preliminary Site Investigation (PSI) for the project. This assessment is currently ongoing; however, the site inspection work to date has not identified any significant contamination activities and/or contamination sources. The results of this assessment will be provided to DPIE/IPC when available.

## **3. Rehabilitation**

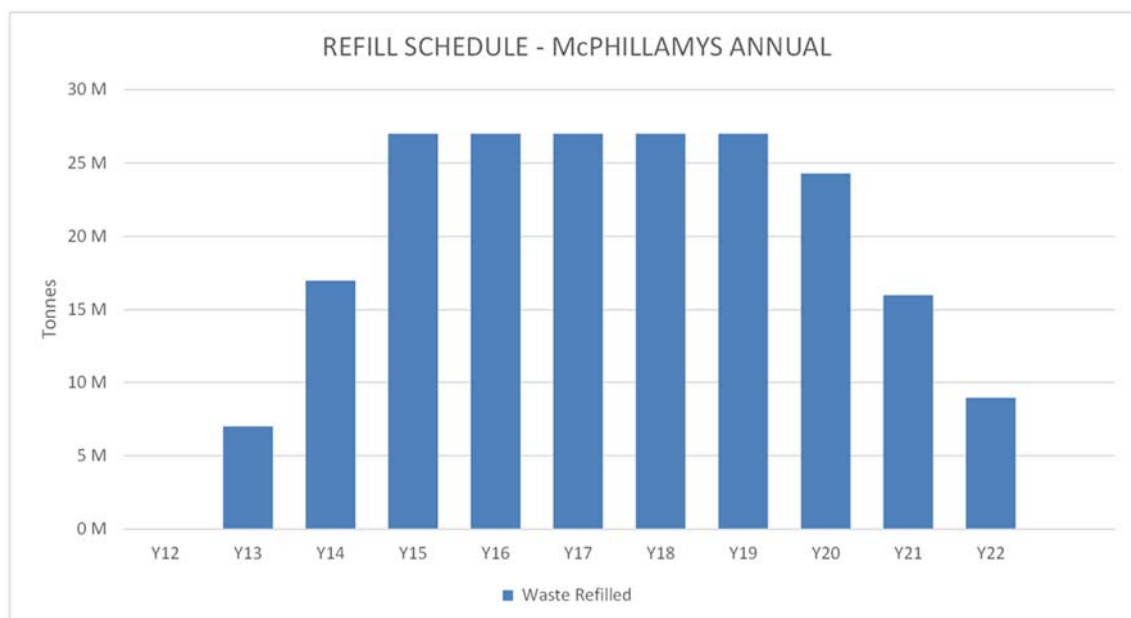
Please provide further information about site rehabilitation and options for final landform design, including reasonable and feasible options to (wholly or partially) fill the open cut pit, and the associated costs and benefits.
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The proposed final landform and void design has been considered extensively as part of project design and the preparation of the EIS, Amendment Report and supporting technical assessments. Progressive rehabilitation will be undertaken generally in accordance with the indicative staged mine plans provided in Chapter 2 of the Amendment Report. At the end of mining and processing, it is anticipated that all infrastructure will be removed from the mine development project area (subject to further consultation with key stakeholders) and all disturbed areas will be rehabilitated to integrate with natural landforms as far as practicable.

As described in the *Rehabilitation and Landscape Management Strategy Addendum* (EMM 2020b) prepared for the amended project, there is no opportunity to progressively backfill the void due to the single pit configuration and the fact that the open cut pit is in the shape of a cone, as necessitated by the cylindrical nature of the ore body. Further, due to this vertical cylindrical nature of the ore body (as illustrated in Figure 2.5 of the EIS), it is not possible to establish multiple pits and a single pit configuration is the only option for extracting this ore body.

Reclaiming the waste rock to backfill the void after mining is complete would significantly prolong the duration of the project, including the potential visual, noise and air quality impacts on neighbouring residents. It would render the project financially unviable as backfilling would essentially involve continuing the mining operation without the production of ore to support the work. In addition, any backfilling would prevent access to mineralisation that extends below the base of the pit and which may have potential economic value in the future.

To illustrate the above, an indicative schedule has been developed to backfill the void once mining is complete, as presented in Figure 1. This schedule is based on similar average mining rates to that assumed for ore extraction in the Amendment Report (EMM 2020a). Infill rates are limited during years 13 and 14 by the available working room at the base of the open cut pit.



**Figure 1.1 Indicative open cut pit refill schedule**

As shown, it would take approximately 10 years to refill the void with material from the waste rock emplacement, effectively doubling the life of the Project. The backfilling operation would involve disturbing the established rehabilitated areas of the waste rock emplacement, including the southern amenity bund, removing the visual screening of earthworks that this provides.

Further, the waste rock emplacement has been carefully designed to incorporate cells for the encapsulation of potentially acid forming (PAF) material that is anticipated to be present in the waste rock. Re-handling waste rock from the emplacement at the end of mining to fill the void would involve disturbing these PAF cells. PAF cells would then need to be established in the open cut void. The reduction in infill rate in years 21 and 22 evident in Figure 1 is due to the need to compact and establish appropriate capping of the waste rock, including the PAF material, as part of final rehabilitation works. An additional stockpile of non-acid forming (NAF) material would also be required to cap the infilled void.

Management of soil would be a further consideration, with soil from the partially rehabilitated waste rock emplacement requiring re-stripping and storing appropriately prior to final rehabilitation of the waste rock emplacement footprint and infilled void.

The indicative total cost to backfill the void would be significant, and in the order of at least \$500 million dollars. Given that the net benefit of the amended project based on contemporary gold price assumptions is \$244 million present value (at 7% discount rate), as reported in the Amendment Report (EMM 2020a), the project would not be viable if backfilling of the void was required.

Backfilling of the void is therefore not a reasonable or feasible option for this project. It would render the project financially unviable and would result in additional and prolonged air, noise and visual impacts that have been carefully minimised as part of the current project design, and specifically by the careful design of the waste rock emplacement.

The primary goal of the project's rehabilitation strategy is to return disturbed land to a condition that is stable and non-polluting and supports the proposed post mining land use, which is a mixture of grazing on improved pasture and woodland areas. As described in the rehabilitation and closure strategy for the mine development (Appendix U of the EIS), erosion modelling of the final landform of the waste rock emplacement was undertaken, confirming this landform will remain stable in the long term. The emplacement has also been designed to incorporate microrelief so that it is sympathetic with the surrounding landscape.

#### **4. Unexploded ordnance**

During the site visit Regis advised that further work was being undertaken on investigating potential use of part of the site for mortar training and potential for unexploded ordnance. Please provide clarification on this investigation and timing of completing these actions and further information about assessment and management of risks in relation to the unexploded ordnance within Project site.
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As previously indicated, Regis has become aware of an item of military origin (i.e. a WW2 mortar tail) being located within the project area. Regis, in consultation with EMM, conservatively developed a scope of work for a targeted unexploded ordnance (UXO) survey, search and clearance operation to be undertaken within a representative area within the broader project area. This scope was informed by an initial site visit that included an instrument-assisted visual surface search of the area where item of military origin had been discovered previously.

Subsequent to the initial site visit, Regis engaged a suitably qualified company to undertake the survey, search and clearance operation which was undertaken from 9 to 11 November 2020. The survey and search did not find any additional items of UXO.

Notwithstanding, workshops will be held with representatives from Regis, EMM and the company responsible for this operation this month to define the next steps. A risk management assessment will be undertaken as part of this workshop, and the timing for completion of any additional activities will be dependent on the outcomes of the workshop but is anticipated to occur within the next month.

## 5. Spring flow

Please provide further information about spring flow and interactions with the Belubula river pre-mining, including validation and analysis of flow duration curves, and flow information from the V-notch weir installed in late 2019 to support analysis of spring flow contribution.
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The conceptual understanding of the interaction between surface water and groundwater (including springs), as reported in the Surface Water-Groundwater Interaction Assessment report (Appendix C to the Submissions Report), has been informed by analysis of:

- routine surface water and groundwater quality monitoring data (refer Section 2.3 to 2.6 of the Surface Water-Groundwater Interaction Assessment report);
- groundwater level monitoring data, which informs the understanding of groundwater flow directions (refer to Section 2.3 of the Surface Water-Groundwater Interaction Assessment report and Section 3.3 of the Groundwater Assessment Addendum report (Appendix H of the Amendment Report));
- routine observations related to spring/seep areas, including photographs, flow observations (if any), and ground conditions (refer to Appendix B of the Surface Water-Groundwater Interaction Assessment report);
- monitoring of streamflow; and
- observations relayed from discussions with local landholders during field surveys (refer to Section 2.4 of the Surface Water-Groundwater Interaction Assessment report).

### 5.1 Streamflow monitoring

As part of the assessments, EMM and HEC have reviewed available streamflow data from the gauging station (Belubula River at Upstream Blayney, GS 412104) that was located at the Mid Western Highway and the v-notch weir monitoring station (monitoring site SWFM05). The assessments involved reviewing streamflow data to estimate baseflow (groundwater discharge) at the two locations and to review flow persistence during the monitoring periods. The flow monitoring locations (GS 412104 and SWFM05) are presented on Figure 5.1.

#### 5.1.1 Belubula River downstream of the Trib A confluence (SWFM05)

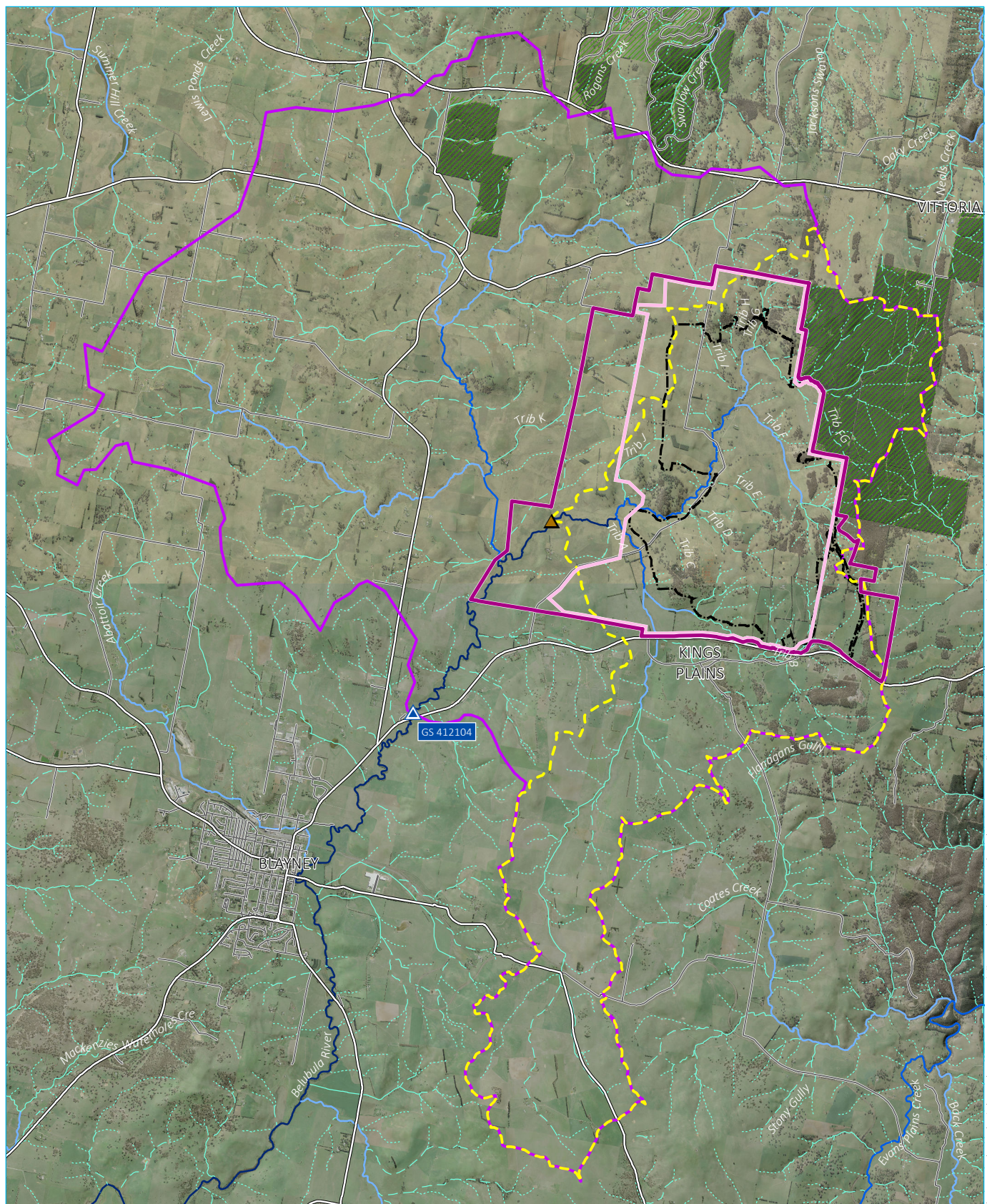
Regis installed a v-notch weir downstream of the confluence of the Belubula River and Trib A in January 2020. The weir is located downstream of the project disturbance footprint and the mining lease application area (Figure 5.1). The weir was commissioned in March 2020, whereafter flow monitoring commenced.

Streamflow data recorded at SWFM05 is presented on Figure 5.2.

Surface water and groundwater monitoring in the area has been occurring for more than two years (up to six years at some locations). The streamflow data collected will continue to be used to review the existing conceptual understanding regarding surface water-groundwater interactions.

At the time of the construction of the v-notch weir, the Belubula River was not flowing and water in the watercourse was limited to isolated pools (see Photograph 5.1). Following construction, the mine development area has received above average rainfall to date in 2020. Photograph 5.2 shows the Belubula River following construction of the weir and rainfall in January and February 2020. A comparison of monthly rainfall totals in 2020 and long term mean rainfall from the Scientific Information for Land Owners (SILO) Data Drill (accessed 13 November 2020) is presented in Figure 5.3. It illustrates the above average rainfall conditions observed in 2020 and the low rainfall period observed between 2017 to 2019, when compared to the longer term mean monthly rainfall totals.





Source: EMM (2019); Regis Resources (2019); Survey Graphics (2019); DFSI (2017); DPI (2015); ELVIS (2014)

## KEY

- Mine development project area
- Mining lease application area  
(Note: boundary offset for clarity)
- Disturbance footprint
- SWFM05 catchment area
- GS 412104 catchment area
- Existing environment
- Main road
- Local road
- Vittoria State Forest
- ▲ SWFM05
- ▲ Historical stream gauging station
- Strahler stream order
- 1st order
- 2nd order
- 3rd order
- 4th order
- 5th order
- 6th order

## Streamflow monitoring locations

McPhillamys Gold Project  
Response to DPIE RFI  
Figure 5.1

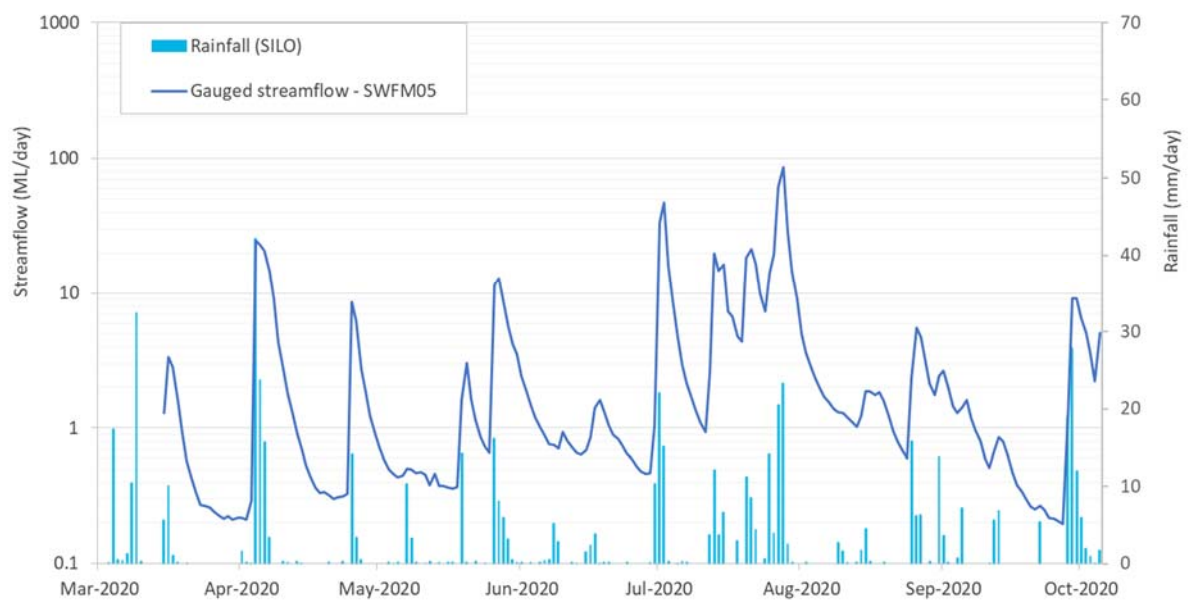




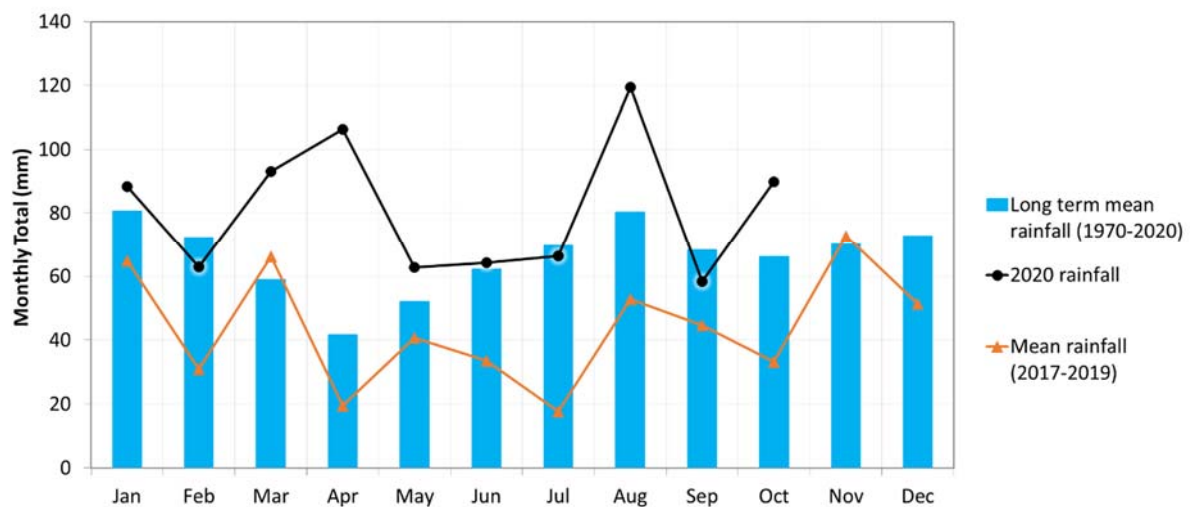
**Photograph 5.1** *Belubula River downstream of the confluence with Trib A (SWFM05; looking downstream) – 11 December 2019*



**Photograph 5.2** *Belubula River flow monitoring station (SWFM05, looking upstream) – 11 February 2020*



**Figure 5.2** Streamflow measured at Belubula River downstream of the Trib A confluence (SWFM05)



**Figure 5.3** Rainfall observations (SILO) – comparison of long term mean and 2020 monthly totals



#### *5.1.2. Belubula River at Upstream Blayney (GS 412104)*

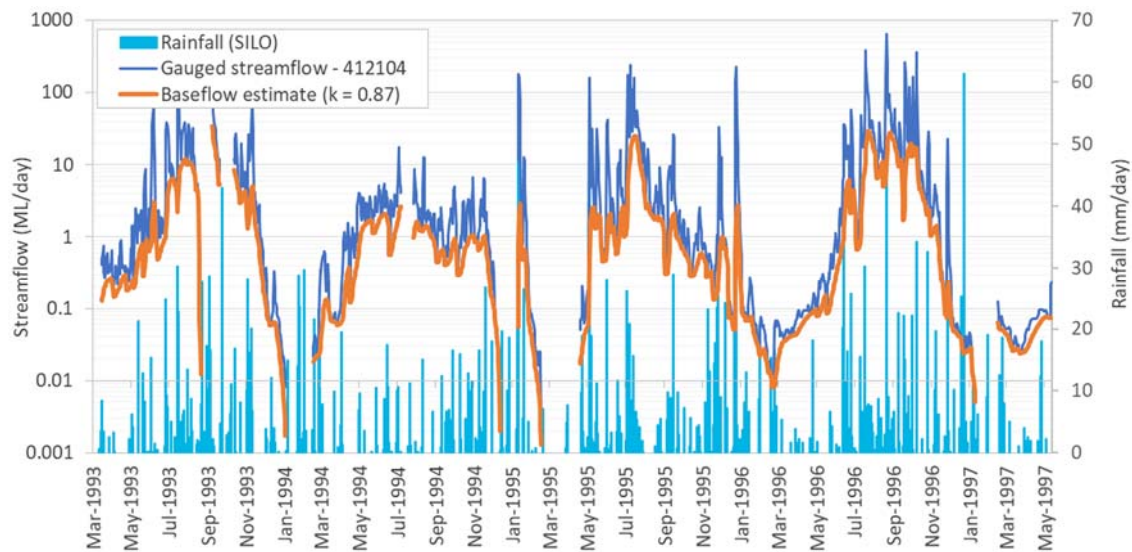
As reported in Section 2.8.1 of the Revised Surface Water Assessment (HEC 2020), there are four years of flow monitoring data available from GS 412104 (between 1993 and 1997). In comparison to the catchment reporting to SWFM05 (43.5 km<sup>2</sup>), the size of the catchment reporting to GS 412104 is 111 km<sup>2</sup> (HEC 2020). Therefore, this location will receive higher stream flows than at SWFM05. During the monitoring period, this section of the Belubula River was effectively perennial, with no flow recorded 1.2 percent of days in the record. There are, however, gaps in the data record, such as early 1994 and March to May 1995 (refer Figure 5.4).

The contribution of groundwater discharge (baseflow) has been estimated using the Lyne and Hollick (1979) digital filter. The Lyne and Hollick (1979) method is a commonly used and accepted repeatable, automated mathematical method of separating quickflow and baseflow using streamflow hydrograph data alone. Rapid rises and subsequent recessions in the hydrograph are located and apportioned as quickflow, while the remainder of the flow is apportioned as baseflow. As the Lyne and Hollick filter uses 'blind' frequency filtering mathematics and takes no catchment specific or climatic inputs (it uses streamflow records alone), it cannot distinguish between groundwater discharge and other forms of slow water release. In locations where alluvial materials adjacent to creeks may detain runoff, the rate of groundwater discharge may actually be lower than the 'baseflow' reported by this method. As such, this method provides an indication of baseflow contribution only.

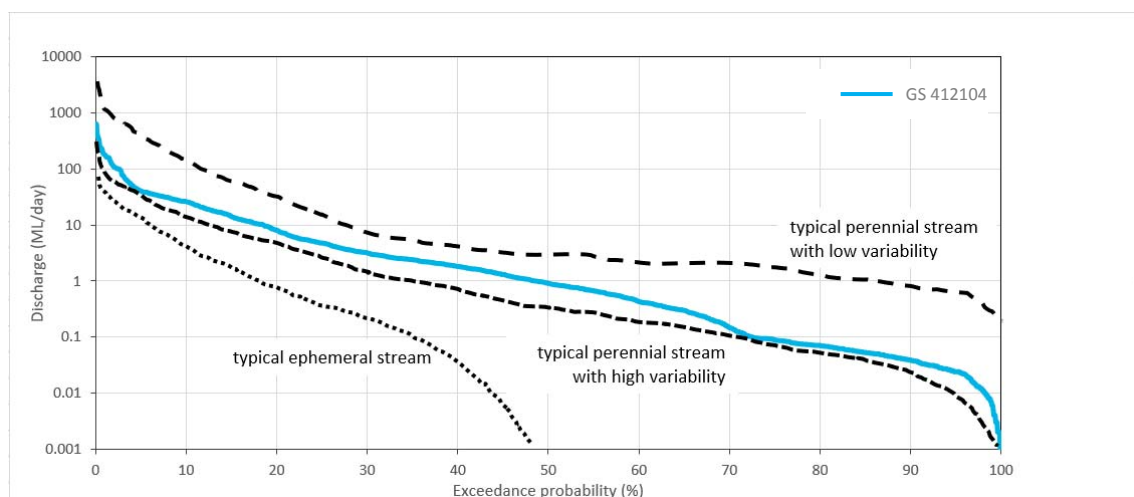
During the monitored period (1993 to 1997), groundwater discharge (baseflow) at GS 412104 at the Mid Western Highway is estimated to range between 15 and 25 percent. This is consistent with the conceptual understanding that was reported in Section 3.5 of the Surface Water – Groundwater Interaction Assessment report (refer Appendix C of the Submissions Report).

A flow duration curve has also been created using the available data to supplement the baseflow analysis (refer Figure 5.5). The flow duration curve was constructed by ranking the daily streamflow data from the maximum to the minimum and determining the percentage of time each flow value is exceeded. The flow duration curve (Figure 5.5) has been annotated to display typical curves of perennial and ephemeral streams. The general slope of the curve represents streamflow variability, while the x-intercept indicates the perennial or ephemeral nature of the stream (Brown et al. 2006).

When compared to the long-term average rainfall, the climate during the monitored period is representative of average rainfall conditions. Therefore, the streamflow during this period is representative of average climate conditions. Figure 5.4 and Figure 5.5 show that the Belubula River at the Mid Western Highway is effectively perennial.



**Figure 5.4** *Belubula River at Upstream Blayney (GS 412104) – gauged streamflow and baseflow estimate*



**Figure 5.5** *Flow duration curve – Belubula River at Upstream Blayney (GS 412104)*

The information presented above supports the observations described by local landholders and the understanding reported in the EIS and Submissions Report that the Belubula River downstream of the mine development is perennial and receives contribution from groundwater.

However, as stated in the EIS and Submissions Report, further upstream, the main contribution to surface water flows is rainfall and runoff, rather than groundwater discharge at the watercourse or flow from springs away from the watercourse. This has been observed during routine monitoring events and field surveys, which is discussed further below.

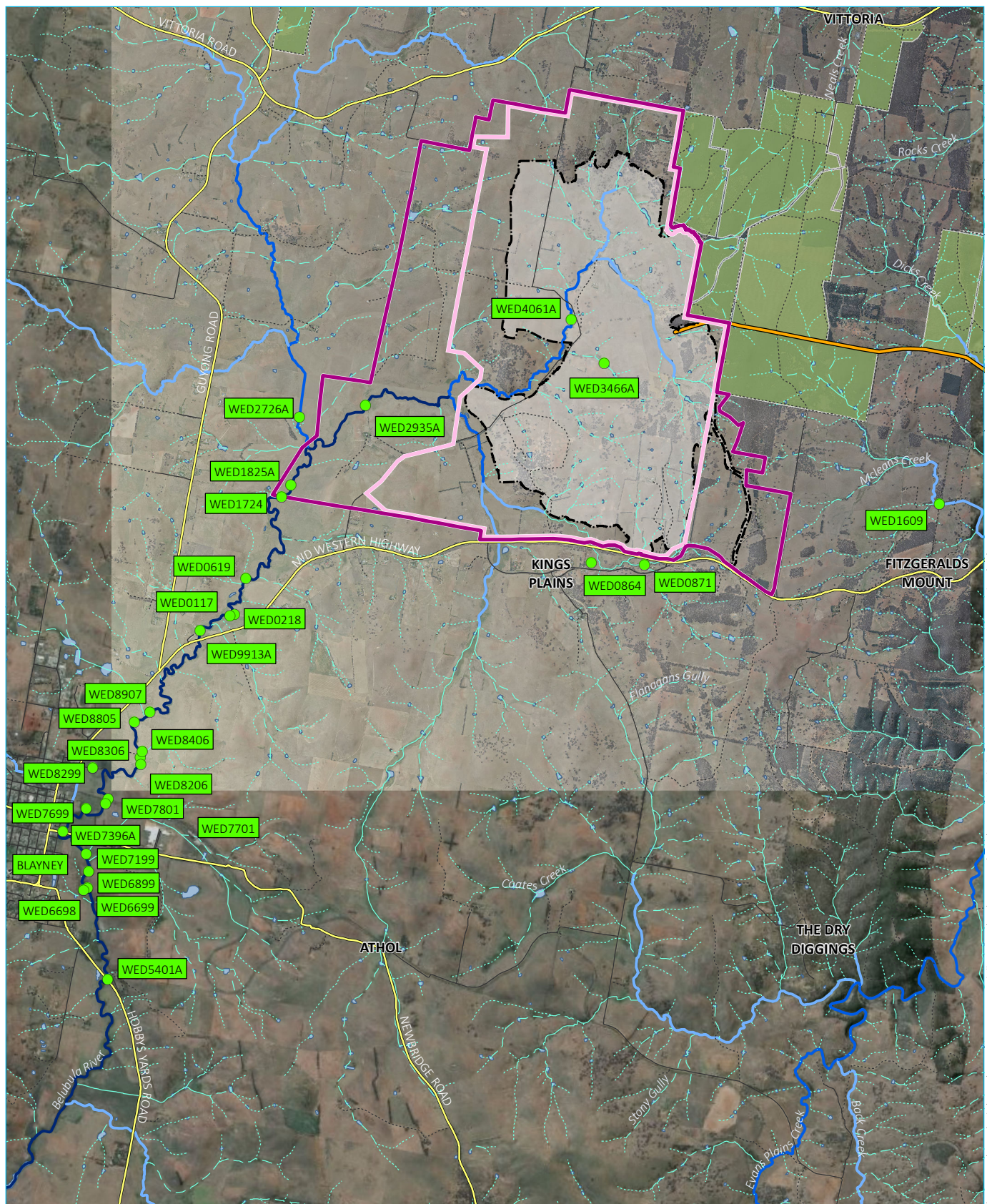
## 5.2 Water monitoring and observations

As reported in Section 5.1.3 of the Submissions Report, routine water monitoring commenced for the project in May 2014 across a network of landholder bores and surface water features. Since then, Regis has drilled and installed additional groundwater monitoring bores, and has increased the monitoring locations to include springs, dams and other sections of the Belubula River within and downstream of the project disturbance footprint. Data from this substantial monitoring period has informed the conceptual understanding of the water environment reported in the EIS and the Submissions Report.

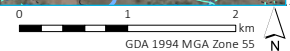
Belubula River monitoring locations are shown on Figure 5.6. Spring and seep locations are shown on Figure 5.7.

As part of the surface water monitoring (conducted at dams, watercourse locations and springs), observations regarding flow and appearance have been recorded since 2017. Photographs of monitoring sites are also collected during the monitoring events. Spring/seep monitoring photographs are appended to the Surface Water-Groundwater Interaction Assessment report (refer Appendix C of the Submissions Report) and show that conditions change over time. In addition to the photographs appended to the Surface Water-Groundwater Interaction Assessment report, observations from the December 2019 monitoring round further support the understanding that the groundwater contribution to surface water flows in the mine development area are negligible (upstream of Trib A). Monitoring locations within the Belubula River and at springs towards the top of the Belubula River catchment were dry at the time of monitoring in December 2019. Photograph 5.3 shows dry conditions at Belubula River monitoring location WED4061A, which is located upstream of Trib E (refer Figure 5.6). In addition, spring location WES4865A and WES1164A were also dry in December 2019 (refer Photograph 5.4 and 5.5 and Figure 5.7 for locations). Further downstream at the Mid Western Highway, the Belubula River monitoring location WED99135A had sufficient water to sample, however, there was limited flow in the river at the time of sampling.





Source: EMM (2020); Regis Resources (2020); Survey Graphics (2019); DFSI (2017); DPE (2015); ELVIS (2014)



## KEY

Project application area

Mine development project area

Mining lease application area (Note: boundary offset for clarity)

Disturbance footprint

Pipeline

Existing environment

Major road

Minor road

Vehicular track

Vittoria State Forest

Waterbody

Strahler stream order

1st order

2nd order

3rd order

4th order

5th order

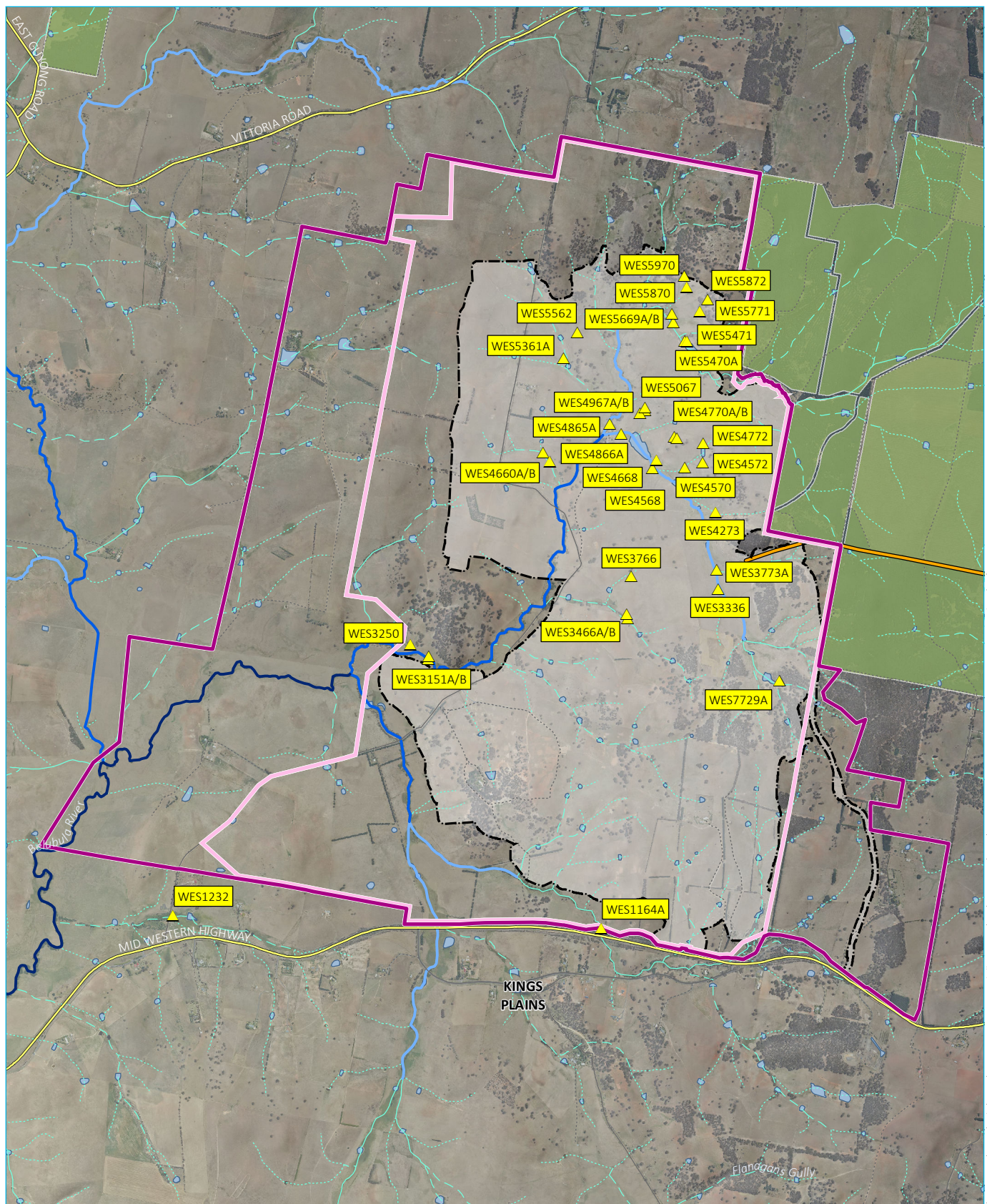
6th order

Watercourse monitoring location

## Belubula River monitoring locations

McPhillamys Gold Project  
Response to DPIE RFI  
Figure 5.6





Source: EMM (2020); Regis Resources (2020); Survey Graphics (2019); DFSI (2017); DPE (2015); ELVIS (2014)

0 1 2 km  
GDA 1994 MGA Zone 55  
N

## KEY

Project application area	▲ Identified seep/spring	Strahler stream order
Mine development project area	Existing environment	1st order
Mining lease application area (Note: boundary offset for clarity)	Major road	2nd order
Disturbance footprint	Minor road	3rd order
Pipeline	Vehicular track	4th order
	Vittoria State Forest	5th order
	Waterbody	6th order

## Seep and spring locations

McPhillamys Gold Project  
Response to DPIE RFI  
Figure 5.7





**Photograph 5.3** *Belubula River monitoring location WED4061A in December 2019 (dry)*



**Photograph 5.4** *Spring monitoring location WES4865A in December 2019 (dry)*





**Photograph 5.5** Spring monitoring location WES1164A in December 2019 (dry)



**Photograph 5.6** Belubula River monitoring location WED9913A in December 2019



As part of the assessments conducted to inform the pre-mining conditions in the mine development area, surveys (drone and walkover) were conducted in February and March 2018 to document the catchment and watercourse condition and to inform the surface water assessment conducted by HEC. During the surveys, dry conditions prevailed and no visible flow or standing (pooled) water within the mapped streams was observed (refer Section 3.2 of the Stream Order Assessment report prepared by EMM in 2018).

As reported in Section 2.4.1 of the Surface Water-Groundwater Interaction Assessment report (Appendix C of the Submissions Report), EMM visited various landholder properties to survey areas of interest associated with the Belubula River, including springs and bores. The sampling undertaken on landholder properties was generally conducted during a period of low rainfall which started in April 2017, except for a period of moderate to high rainfall between November 2018 to January 2019 (328 mm of rain). The rainfall for the week and month prior to the November 2019 sampling round totalled 2 mm and 13.4 mm respectively. While this low rainfall period was stressful for many local farmers and landholders, it was an opportunistic time to collect information about potential groundwater contribution to the Belubula River during those low rainfall conditions. During this field survey, the upper reaches of the Belubula River (upstream of Trib G) were dry, including seep WES5669A, except where dams have been excavated. Trib A at Dungeon Road was also dry in November 2019. This is shown in Photograph 5.7 and 5.8.



**Photograph 5.7** *Belubula River (upstream of Trib G; downstream view) – 13 November 2019 (dry)*





**Photograph 5.8 Trib A at Dungeon Road crossing (downstream view) – 13 November 2019 (dry)**

### **5.3 Conceptual understanding**

The conceptual understanding forms the basis of the surface water and groundwater impact assessment studies, and has been informed by monitoring data, including observations and photographs from field surveys as well as streamflow monitoring data. The consistent observations demonstrated across the varied types of monitoring data provide confidence in the robustness of the conceptual understanding and the impact assessments completed for the EIS and amended project.

Based on the monitoring data and observations, the following provides a summary of the understanding of the existing water environment (surface water–groundwater interactions) that was provided in the Surface Water-Groundwater Interaction Assessment report (Appendix C of the Submissions Report) and that formed the basis of the surface water and groundwater impact assessment studies presented in the EIS, Submissions Report and Amendment Report:

- Springs and seeps are present across the mine development, Kings Plains and Blayney area. Most springs in the mine development area are associated with areas where the topographic gradient changes abruptly and intercepts shallow groundwater flow. Field surveys and discussions with landholders shows that many of these springs and seeps have been excavated into dams to increase water access for stock. Whilst groundwater does discharge into the watercourse as baseflow in downstream areas of the Belubula River, a large amount of the groundwater discharge as a seep or spring evaporates, is used by vegetation or for stock and domestic purposes (ie in a dam).



- In the mine development area, rainfall and runoff are the main contributing sources of water to the Belubula River flows. Groundwater contributes only a minor amount to streamflow in the mine development area. This is supported by observations recorded during monitoring events and surveys.
- Downstream of the Mid Western Highway, groundwater currently contributes around 20 per cent to the watercourse flows. This is supported by the streamflow data at the Mid Western Highway (GS 412104 during 1993 to 1997) and field observations that demonstrate the Belubula River is effectively perennial in this area. This groundwater discharge is predicted to remain unchanged during active mining.

## 6. Economic benefits

Please provide further clarification about the change in the Project's economic benefits following the amendments to the Project, including the change in the employment number and mobile fleet, noting the proposed use of larger vehicles.
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The project, as amended, does not propose any changes to the expected peak and average employment levels to those presented in the EIS. As reported in the EIS, the project will provide direct employment for:

- approximately 710 full-time equivalent (FTE) employees and contractors during construction, of which around 120 workers will construct the pipeline development; and
- an average of around 260 FTE employees during the 10 year operational mine life, peaking at approximately 320 FTEs.

It will also provide indirect employment in the regional economy from employee and project expenditure.

Amendments made to the project include the optimisation of the mining mobile equipment fleet (both the quantity and type) through the selection of larger capacity equipment (haul trucks and excavators), which has resulted in noise and air quality benefits compared to the original project presented in the EIS.

Changes in the mobile fleet assumptions have resulted in some changes to the configuration of the workforce, with different numbers of workers anticipated to be required for certain roles; however, the net outcome is that the overall average and peak workforce assumptions remain the same. For example, some changes include:

- the larger capacity equipment and subsequent smaller overall mining fleet numbers has resulted in less equipment operators being required for the amended project;
- some additional processing and operational personnel are anticipated to be required to account for the concept of job sharing which Regis is committed too, to provide the opportunity for local farmers to both work at the mine while maintaining work on their properties; and
- some additional support staff are anticipated to be required, as identified through detail mine planning undertaken since the preparation of the EIS.

As reported in the Amendment Report, an addendum economic impact assessment (EIA) was prepared by Gillespie Economics (Section 6.15 and Appendix U of the Amendment Report) to assess the change in the project's economic benefits following the amendments to the project. The addendum EIA concluded that the amended project has a similar net production benefit to the EIS project; that is \$141 M net present value (at 7% discount rate) compared to \$143 M for EIS project. The higher capital costs and lower revenue associated with the amended project (relative to the EIS project) are partly offset by lower operating costs and lower offset, compensation and mitigation costs.

The net social benefit of the amended project to NSW is estimated at \$139 M net present value (at 7% discount rate) (\$231 M with employment benefits included) compared to \$141 M for the EIS project (\$232 M with employment benefits included). The net social benefit of the amended project to NSW is therefore not materially different to the EIS project and the project remains highly desirable and justified from an economic efficiency perspective.

## 7. Seepage

Please provide further information about proposed management controls for storage and seepage of the poorer quality water piped from the Lithgow mines/ Mount Piper Power Station.
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As discussed in Section 2.9.2 of the Amendment Report, the project's operational water management system will comprise a number of water management facilities (WMFs), the open cut pit and the tailings storage facility (TSF), together with a system of pumped transfers and drains. Imported water from the pipeline will be contained within the operational water management system, with the mine development area designed to be a nil discharge site. The raw WMF will be the long-term site water supply storage for the mine development and will be used to store water from the imported pipeline supply.

The site water management system will operate as a closed system, with water transferred, reused and stored in WMFs that are designed not to spill in any climate scenario assessed by the surface water modelling (as described in detail in Appendix G (Revised Surface Water Assessment) of the Amendment Report).

As part of construction, the floor of the WMFs will be appropriately engineered and conditioned to reduce water seepage. In relation to the RWMF, this would include conditioning of the in-situ clay materials to a nominal 300 mm clay base to enhance the material's naturally engineered permeability level. The design of the liner would be such that the available in-situ clay would achieve a permeability of 300 mm at  $1 \times 10^{-9}$  m/s. Permeability testing would be undertaken during construction of the RWMF to ensure this minimum permeability is achieved.

## 8. Water pipeline

Please provide an update on the status of discussions with:
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- |   |
|---|
| <ul style="list-style-type: none"><li>- relevant Councils/roads authorities on the construction and operation of the pipeline in road easements and other utilities, rail line, transmission line, electricity easement, etc; and</li><li>- private landowners on pipeline easement negotiations.</li></ul> |
|---|

The detailed design of the water supply pipeline is continuing to progress, and engagement and consultation with relevant authorities is ongoing. Throughout the design process Regis has undertaken liaison with private landowners, Councils, statutory authorities and land managers along the proposed route. This includes (but is not necessarily limited to) engagement with Crown Lands, Forestry Corporation, Australian Pipeline Authority, TransGrid, Country Rail Network, Coal Link, Transport for NSW, Western Coal Services/Centennial Coal Services, Energy Australia and the Lithgow, Bathurst and Blayney Councils.

The objective of these discussions has been to confirm the pipeline access arrangements, design/alignment and ultimately the granting of easements and/or relevant permits and licences. The detailed design process is now well advanced, and Regis remains confident of concluding the design and access arrangements in early 2021.

Negotiations with private landholders on pipeline easement agreements have been very positive and successful to date. Of the 18 private landholder agreements required for the water supply pipeline, a total of nine have already been signed, a further two have requested check valuations and the remaining six are close to, or are in the process of, signing.

## 9. Power supply

Please provide further information and status update about the assessment pathway for the Project's power supply/required transmission line.
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Power will be supplied to the mine development from a new above ground powerline to be constructed between the mine development and TransGrid's 132 kV system Line 948 which passes between Bathurst and Orange, approximately 15 km to north of the processing plant. The entire route is on land zoned RU1 Primary Production. Pursuant to *State Environmental Planning Policy (Infrastructure) 2007*, the power supply infrastructure is permissible without development consent (ie subject to Part 5 approval under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act)).

As described in the EIS, a separate Part 5 approval for this powerline will be sought under the EP&A Act. Consultation with relevant providers (including TransGrid and Essential Energy) relating to this power supply is ongoing.

While approval for this infrastructure is not sought as part of the project, an overview of potential impacts relating to the physical works required are presented in Appendix X of the Amendment Report to assist the IPC as the consent authority for the project in considering the likely impacts of the required infrastructure.

## 10. Discovery Ridge

Please provide further information about this prospect, including estimates of the resource, and clarification about interactions of Discovery Ridge with the Project.
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The Discovery Ridge satellite deposit is approximately 32 km south-west of the mine development project area. The Mineral Resource Estimate for Discovery Ridge is 13.84 million tonnes at 1.1 grams per tonne gold for 501,000 ounces. This compares to 69.8 million tonnes at 1.02 grams per tonne of gold for 2.3 million ounces for McPhillamys.

Discovery Ridge does not form part of the development application for the project.

While exploration programs have been undertaken on the Discovery Ridge deposit to ascertain the extent of the resource, feasibility studies have not yet been completed. Results of drilling completed to date indicate that the deposit at Discovery Ridge presents an opportunity, should the relevant feasibility studies provide a favourable outcome to supplement the McPhillamys deposit.

If deemed feasible, the Discovery Ridge project would be subject to a separate development application and the environmental assessment documentation would need to consider potential impacts from that development, including potential impacts associated with interactions between Discovery Ridge and McPhillamys if proposed.

## 11. Closing

If you require any further detail or wish to discuss the information provided, please do not hesitate to contact either myself (via the details below) or Andrew Wannan (0437 001 823, [awannan@regisresources.com](mailto:awannan@regisresources.com)).

Yours sincerely

A handwritten signature in blue ink that reads "Rod Smith". The signature is written in a cursive, flowing style.

**Rod Smith**  
General Manager NSW  
[rsmith@regisresources.com](mailto:rsmith@regisresources.com)



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