

# FACTSHEET

## Baseline Studies

Saint Elmo Project  
October 2018

EPIC Environmental (Epic) are working with Multicom Resources Limited (Multicom) on collecting baseline data for the Saint Elmo Project.



### ENVIRONMENTAL IMPACT STATEMENT

Multicom Resources Ltd (Multicom) with its environmental consulting partner Epic Environmental (Epic), are developing a comprehensive Environmental Impact Statement (EIS). The EIS is the overarching approvals document that will address critical matters across State and Commonwealth legislation, as well as providing opportunities for public comment.

The purpose of the EIS is to:

- describe the existing environmental values of the Project area,
- the potential impacts of the Project, and
- ways of avoiding, mitigating or offsetting impacts.

### BASELINE ENVIRONMENTAL STUDIES

Epic is made up of a team of scientists and engineers with demonstrated experience in the collection and interpretation of baseline environmental data for impact assessments.

In order to understand impacts to environmental values, it is important to understand the baseline or existing state of the environment. Baseline data has been collected for the following environmental values:

- Ecology,
- Surface water,
- Groundwater,
- Air quality (dust), and
- Noise.

Baseline monitoring generates data that allows Epic and the government to observe seasonal trends and variations. These are used to inform conditions that will be imposed on the Project given Commonwealth and State approval.

### ECOLOGY

Epic have undertaken three ecological surveys since 2017 to assess the ecological values (flora and fauna) of the Project site and generate a baseline list of species.

These surveys have involved trapping for small mammals, bird surveys, vegetation studies and targeted searches for both the Julia Creek Dunnart and Star Finch.

- Despite suitable habitat being present, no Dunnart were found during the survey.
- Suitable habitat for Star Finch does not occur within the Project mine lease boundary.

Understanding the habitat values of the Project site is important to inform what impact the Project may have on habitat connectivity and fragmentation, species populations and biodiversity in general.



*Figure 1. Epic staff checking funnel traps for small mammals and reptiles*

## SURFACE WATER

There are very limited surface water features available within the Project area. Therefore, it is important to obtain a baseline dataset of physio-chemical and biological data for the receiving environment surrounding the Project.

Epic have been collecting water samples from upstream and downstream locations along:

- Flinders River,
- Julia Creek,
- Spellary Creek,
- Alick Creek, and
- A dam located within the Project area.

These samples have been analysed by an independent, accredited laboratory. The results will be used to inform the EIS and assist with the determination of potential environmental impacts to surface water.



*Figure 2. Surface water sampling during the wet season*

## GROUNDWATER

Five groundwater monitoring bores (around 20 meters below surface) have been installed across the Project area. The mining operation is relatively shallow with a maximum depth of about 20 meters.



*Figure 3. Sampling a groundwater monitoring bore*

Currently, only one bore has provided water samples, demonstrating the lack of groundwater at the mine depth. The monitoring bores are sampled every month to obtain a baseline dataset of physio-

chemical parameters of groundwater that may be impacted by the Project.

## AIR QUALITY (DUST)

Air quality monitoring stations have been established at four homesteads surrounding the Project. Homesteads are selected as they represent the most sensitive potential receptors.

The air quality monitoring stations, known as dust deposition stations, consist of a large stand (around 1.8 m) with a glass jar and funnel positioned on top. Suspended particles (dust) in the air fall onto the funnel, then into the jars.



*Figure 4. Changing a dust jar*

The contents of the jars have then been analysed by an independent, accredited laboratory. These bottles are changed every month and the contents analysed to create a baseline dataset of seasonal variation in dust generation. In addition, an air quality monitoring machine that continuously measures air born particles and wind direction has been active on the Project site since June 2018.

The results will be used to inform dust management strategies needed through the construction, operation and decommissioning phases.

## NOISE

Noise logging devices were also deployed at the four homesteads to monitor existing background noise levels within and around the Project.

## Further information

If you would like further information on the Project, please:

- Email [saintelmo@epicenvironmental.com.au](mailto:saintelmo@epicenvironmental.com.au) ; or
- Freecall 1800 270 844; or
- Visit <https://www.m cres.com.au/saint-elmo-project>