

# TAMPAKAN COPPER-GOLD PROJECT

## MANAGING WATER IN THE MAL RIVER CATCHMENT



Sagittarius Mines, Inc.'s (SMI) proposed Tampakan Copper-Gold Project involves one of the world's largest undeveloped copper-gold deposits. SMI is a contractor of the Philippine Government under the terms of a Financial and Technical Assistance Agreement (FTAA).

As a Filipino company with a commitment to the highest standards of sustainable development we have completed Environmental Impact Assessment (EIA) studies involving Filipino specialists working in conjunction with international experts.

The mine Environmental Impact Statement (EIS) has been prepared in accordance with the Philippine regulatory requirements and presents the results of the EIA studies. The EIS will support an application to the Philippine Government for the grant of an Environmental Compliance Certificate (ECC) for the Project.

In addition, we have partnered with international experts to develop a world-class Environmental and Social Impact Assessment (ESIA) report to further demonstrate that the assessment of potential environmental and social impacts has been conducted in alignment with relevant international standards.

We have thoroughly investigated ways to mitigate the potential impacts of the Project and used this information in developing our design plans reflected in our Mine Project Feasibility Study (MPFS). These plans are aligned with our major shareholder Xstrata, a global diversified mining group that is internationally recognized as a sector leader in corporate responsibility.

## OUR COMMITMENT TO MANAGING THE MAL RIVER CATCHMENT

SMI understands that access to good quality water is critical to the local communities. As part of our planning for the proposed Tampakan Copper-Gold Project, we have invested significant resources in understanding the potential impact of our proposed activities on the water needed by the local community and have prepared water management strategies to ensure we protect the quality and supply of water in the potentially affected areas.

Our strategies are based on 15 years of monitoring and research of water quality across the Project site to develop a significant quantity of baseline data. We have also partnered with local people who understand their local environment to help with this sampling and monitoring work.

We understand that some people are concerned about hosting key mine facilities in their local area. Detailed studies and planning has been undertaken to ensure that the water quality or water supply within the Mal River catchment would not be adversely impacted.

## OUR PLANS FOR MANAGING WATER FLOWS IN THE MAL RIVER CATCHMENT

One of the significant facilities that would be developed to meet mutual water needs is the construction of a freshwater dam (FWD). The FWD would have a storage capacity of 215,000 megalitres which would allow us to capture water (flood harvesting) during the wet season that exceeds the current maximum usage of downstream users and which is currently unused and could otherwise cause flooding.

When the water flow in the river is below the current maximum amount used by irrigators, the mine would not take any water out of the system. The FWD would be designed and operated to ensure that our operations do not interfere with this natural "pre-mine" flow of the Mal River.

In addition, the FWD is designed to be operational beyond the life of the Project. As a result, after mine closure, the FWD would provide opportunities for the downstream local irrigators and farming communities that would not be otherwise possible including:

- Increased reliability of rice production and farmer incomes
- Greatly reduced impacts from long periods without water supply
- Increased confidence in water supply and more equitable distribution of water supplies.

## PROTECTING WATER QUALITY

We are committed to ensuring that any water discharged from the site would be suitable for all current uses and compliant with regulatory requirements. Our comprehensive water management strategy include:

- Installing and operating international standard water treatment plants to ensure that the water is suitable for its current uses and would not cause ecological harm
- Storing waste water in the tailings storage facility (TSF) and recycling this water for use by the mine
- Ensuring that rainfall which comes into contact with any part of the mining or processing area is kept separate from fresh water that can be directly released
- Constructing downstream seepage collection dams to contain any water seepage and either treating that water for release or pumping it back into the main storage facility.

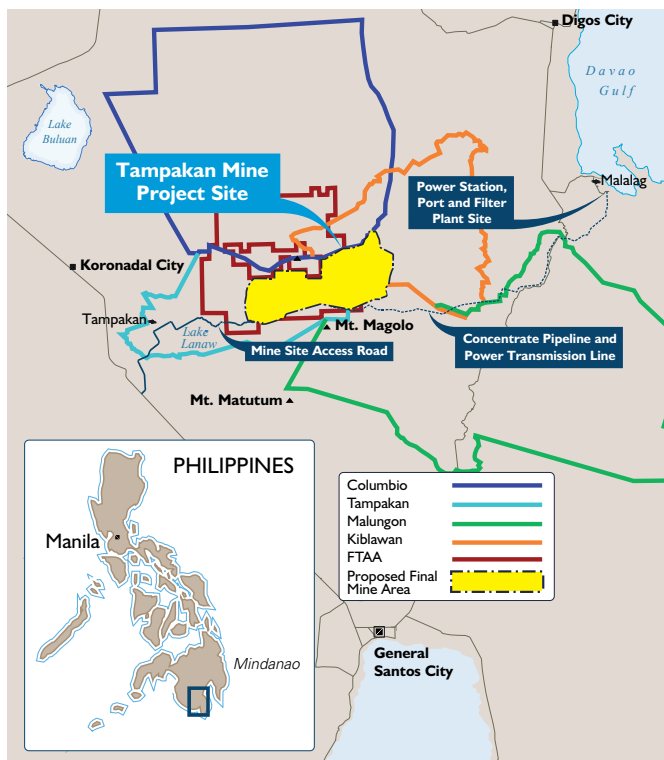


## GAINING INDEPENDENT, EXPERT ADVICE

The study of water is part of our EIA. It involved the development of appropriate management plans to avoid or mitigate negative impacts and to enhance positive impacts, and meets all Philippine Government legislative requirements.

As part of our robust planning process during the EIA we involved Filipino and international specialists to conduct the relevant environmental studies and participate in our consultation with local people and relevant stakeholder groups.

### LOCATION OF THE TAMPAKAN COPPER-GOLD PROJECT



## NEXT STEPS

The Project has a number of stages to complete before final construction can commence including approvals from the government, the community and SMI Shareholders.

Making this Project a reality requires us to work in partnership with our stakeholders and we would continue to work openly with them, particularly those who have concerns and queries about our proposed Project activities.

Incorporating this feedback into our plans would ensure the Project can become a blueprint for ethical large-scale modern mineral development in the Philippines, including best practice in resettlement programs, indigenous consultation, as well as EIAs.



External Relations Unit  
Sagittarius Mines, Inc. (SMI)  
02 8563021 (Makati)  
083 5548414 (General Santos)  
Email: [externalrelations@smi.com.ph](mailto:externalrelations@smi.com.ph) | [www.smi.com.ph](http://www.smi.com.ph)

## FREQUENTLY ASKED QUESTIONS

### How would you manage water during construction and before the freshwater dam is built?

Best practice construction standards would be employed to manage and mitigate the risk of dirty or contaminated water (contact water) leaving the site. We would use diversions to minimize any disruption to Mal River flows during construction of the FWD and TSF. We would seek permits from the government to source any water during the construction phase. We would continue to monitor and sample water quality throughout all phases of the design and construction phase.

### What would happen after the mine closes?

We would continue to treat water even after the mine has closed and water treatment plants would continue to operate accordingly. We would continue to monitor and manage water on the mine until the site is rehabilitated and the seepage catchment dams are decommissioned. We expect that water from the TSF would be suitable for untreated discharge approximately 10 years after mine closure.

### Would the mine cause downstream flooding?

Our investigations as part of the EIA process have found that the mine would not significantly impact downstream flooding. In fact our on-site water storage facilities, including the FWD, would help reduce water flows downstream during flood events.

### Would there be any seepage from the mine?

Any water seepage from the Project area would be managed through seepage collections dams and water treatment facilities to ensure that any water discharged from the site is suitable for current uses.

## PROJECT BENEFITS

Through sustainable partnerships, the Project can enable a better future for the people of southern Mindanao. If developed, the Tampakan Project would generate significant economic benefits that would stimulate the local, regional and national economies.

The region would enjoy substantial benefits from the mine which include:

- An annual contribution of on average PhP1.34 billion<sup>1</sup> to Philippine gross domestic product (GDP) each year over the construction and operation phases – equivalent to an additional annual increase of 1% to Philippine GDP
- Total government revenues (national and local) through a variety of taxes and charges of approximately PhP307 billion<sup>2</sup> (nominal) over the life of the Project
- Royalty payments and direct contributions in excess of PhP39.8 billion<sup>3</sup> (nominal) to local communities and local indigenous groups over the Project's life
- Opportunities for approximately 10,000 workers during the peak of the construction phase and direct employment opportunities for approximately 2,000 workers during the operations phase
- Engagement of local contractors and service providers, generating further substantial employment within the Philippines.

<sup>1</sup>USD2.8 billion. <sup>2</sup>USD6.4 billion. <sup>3</sup>USD830 million. (Based on exchange rate of USD1 = PhP48)  
Disclaimer: The content of this document was accurate, to the best of SMI's knowledge, at the time of publication (May 2011).