

## Using the SWAP to Connect Water, Human Rights and Mining

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### Abstract

*It is important that industries' water interactions respect the human right to water. Historically, within the mining industry there has been a disconnect between the management of sites' internal water interactions and the consequences of their external impacts, including human rights impacts. This poses a challenge for the mining industry as it attempts to put the Ruggie Guiding Principles for Business and Human Rights into practice, particularly as United Nations has recently recognised the human right to water. A technical framework such as the Minerals Council of Australia's Water Accounting Framework (WAF) can help to bridge this disconnect and to integrate human rights considerations into business practice by connecting a site's external and internal water interactions and by encouraging regular monitoring of performance. However, at present the connection is limited since the WAF lacks the capability to formalise a site's social water context. This work presents the Social Water Assessment Protocol (SWAP), a scoping tool consisting of a set of questions organised into taxonomic themes that capture a site's social water context and that can be combined with the WAF to better connect human rights with mine water interactions.*

### Introduction

Recent developments in the sphere of water management and human rights, such as the recognition of the human right to water by both the United Nations (UN) General Assembly and the Human Rights Council (UNHRC 2010), have increased pressure on corporate water users to respect the human right to water. The development of the UN Protect, Respect and Remedy Framework (Ruggie 2008) and UN Guiding Principles on Business and Human Rights (Ruggie 2011) has further encouraged businesses to take more proactive steps in identifying how their existing and planned activities may negatively impact human rights and, in particular, to integrate these considerations into business practice. As the mining industry is a major water user it must consider how its water use may impact on human rights. This requires mine sites to understand the local socio-environmental context in which they operate and incorporate this information into their operational water management practices.

Kemp et al. (2010) suggest that the Minerals Council of Australia's Water Accounting Framework (WAF), a reporting tool consisting of a generic set of definitions and

methodology to represent internal and external mine water interactions, can be used to connect mine water interactions and human rights. Here we expand this proposition by presenting the Social Water Assessment Protocol (SWAP). The SWAP is a scoping tool that aims to capture the socio-environmental context in which a mine site operates, which is a vital step towards understanding the mine's potential impacts with regard to water and human rights. The SWAP aims to assist sites to identify the value of water beyond purely technical metrics and to connect these values to its operational water management.

This paper discusses the current disconnect between human rights and mine water interactions in the mining industry before introducing the SWAP and discussing how the protocol can be used to establish a connection between human rights and water interactions.

### **Challenges with Integrating Human Right to Water within Operations**

Water is essential for human health and wellbeing, food security, environmental protection, income generation and economic development. Water is inextricably linked to the most fundamental of human rights: the right to life and the right to an adequate standard of living and is also indirectly linked to a host of other human rights including education, gender equality and cultural rights. In 2008, the Human Rights Council appointed an Independent Expert on the issue of human rights obligations related to access to safe drinking water and sanitation, and in 2010, both the UN General Assembly and Human Rights Council recognised access to clean water and sanitation as a fundamental human right (de Albuquerque 2012).

From exploration through to closure, water plays a vital role in a mine's lifecycle. Although mine water management tends to focus on a site's internal use of water, for example how it can most efficiently be used within a processing plant, mines cannot divorce their offsite water interactions and resulting impacts from their internal operational water interactions (Barrett 2009). For example, mines are often required to withdraw water from local groundwater and surface water sources, which may reduce the availability of water for other users. Conversely, sites with an excess of water may discharge to local surface water sources, which could cause pollution or flooding, or runoff from waste rock, voids, tailings or other disturbed land may exit the site.

The UN Guiding Principles on Business and Human Rights outline the responsibilities of businesses to respect human rights through a process of human rights due diligence that requires businesses to assess the actual and potential human rights impacts of their activities and act upon the findings to address them (Ruggie, 2011). Due diligence requires a company to build internal awareness and understanding of how its activities intersect with

human rights (ICMM 2012). Kemp et al. (2010) have argued that the Minerals Council of Australia's Water Accounting Framework (WAF) can help to establish a connection between the operational water management of a mine site and human rights impacts by providing a standard set of definitions and a consistent methodology for sites to report on and connect their onsite water use and off-site water interactions, as well as standards for benchmarking performance. However, in practice, the WAF has predominantly been used to report technical metrics that measure the quality and quantity of water entering and exiting a site rather than a site's socio-environmental context, which limits the potential to connect onsite interactions with offsite human rights impacts.

### **The Social Water Assessment Protocol (SWAP)**

The Social Water Assessment Protocol (SWAP) has been developed to address some of the current limitations of the WAF. It is primarily a scoping tool aimed at assisting operational-level personnel to incorporate baseline information about the local water context into their water reporting which acts as mechanism to encourage the integration of human rights considerations into water management at the operational level. In doing so, the SWAP is an important step for establishing a connection between operational mine water interactions and the consideration of human rights.

Prior to undertaking the SWAP the boundary of the social water context needs to be established in terms of a geographical boundary. This is a non-trivial task, and may require, at least initially, estimations based on catchment area or property boundaries which could be later redefined to take into account the social complexity of stakeholders surrounding the mine. The SWAP is still in its formative stages and has not yet been piloted. Therefore, some of the issues in terms of best practice implementation, for example, whether the SWAP should be implemented by onsite personal or an external consultant or how to implement the SWAP under budget constraints, are unexplored.

The SWAP consists of fourteen broad themes containing approximately sixty topics which are intended to serve as prompts for capturing the socio-environmental context of the site as it relates to water. Each topic contains a set of questions to demonstrate the types of information that should be considered. The SWAP also provides guidance on potential sources of information – both primary and secondary – to consult. The fourteen themes investigated within the SWAP are as follows:

- (1) A snapshot of the *physical water sources* within the context
- (2) A survey of the *climate conditions* of the context
- (3) A survey of how water is used for *domestic purposes* within the context

- (4) A survey of the *water infrastructure* within the context
- (5) A survey of how water is used in the *formal economy* and *industry* within the context
- (6) A survey of the water interactions of and significance of water to *Indigenous peoples* within the context
- (7) A survey of the *cultural and spiritual values* that people place upon water within the context
- (8) A survey of the *recreational* use of water within the context
- (9) A survey of general *human rights* issues related to water within the context
- (10) A survey of *gender* issues related to water within the context
- (11) A survey of *health* issues related to water within the context
- (12) A survey of how *other key stakeholders* in the context interact with water within the context
- (13) A survey of the *interaction* that occurs between stakeholders within the context
- (14) A survey of the *legislation, policy and politics* related to water within the context

The SWAP should be used as a guide rather than a definitive checklist as not all questions will be applicable to all sites and additional information may be required in specific contexts. However, care must be taken to ensure that the SWAP contains sufficient detail to accurately capture the site's entire social water context and deciding which themes to include may involve consultation with other stakeholders (for example, community members) or an external auditor. Ideally, implementation of the SWAP would be an iterative process so that more topics and questions will be added as needed. This demonstrates the flexibility of the SWAP and addresses some of the criticism that has been levelled at similar 'checklist' approaches (Eales et al. 2005; van Schooten et al. 2006).

### **Using the SWAP to Connect Human Rights**

By coupling the SWAP with the WAF, a connection between onsite operations and offsite human rights impacts can be established in the following ways. Firstly, the SWAP integrates human rights considerations into a largely technical tool used at the operational level, adding sophistication to the existing quantitative interactions, which may serve as a step in identifying, avoiding and mitigating human rights impacts related to water. It also has the potential to reveal areas where dedicated or issue-specific human rights impact assessment are required. Secondly, the SWAP can be used to produce a contextual statement, a requirement of the WAF that describes the socio-environmental context in which mines operate, potentially inspiring water management strategies that enhance positive impacts (Esteves & Vanclay 2009) and assisting with external communication. Finally, as the WAF is

recommended to be undertaken annually, it encourages sites to consider their impacts on water throughout the project, rather than solely during the planning and approvals stage.

Some examples of how human rights impacts identified through the SWAP can be used to implement onsite change are:

- A mine accesses a source of very low quality water from a creek in lieu of higher quality water from a river. When reported under the WAF this appears to be a positive decision, however, the SWAP indicates that the creek has significant spiritual significance for a local Indigenous community. Based on this information the mine could use alternative sources of water rather than the creek.
- A mine extracts groundwater from a series of underground aquifers which adversely affects the water table for downstream users. The SWAP identifies that women and girls are disproportionately affected by these impacts. As a result, the mine changes its management practices to reuse more water, alleviating its need to access the aquifers.
- The SWAP indicates that a mine is located near a local community without an effluent treatment plant that discharges its effluent to a local river. The same river is accessed by the mine for processing, which negatively affects both the health of the community and mine production. The information gathered by the SWAP encourages the mine to build an effluent treatment facility.

## **Conclusion**

The formal recognition of water as a human right and the increasing pressure on companies to respect human rights means that the mining industry must act with due diligence by identifying, assessing and mitigating their impacts on the human right to water. Currently, there is a disconnect between operational-level mine water management and the consideration of human rights impacts. We have proposed that the Social Water Assessment Protocol (SWAP), a scoping tool aimed at assisting mine sites to gather baseline information about the local water context in which they operate, will assist to bridge this disconnect, encouraging companies to integrate human rights considerations at the operational level of business practice. The SWAP should be used in conjunction with a technical framework such as the WAF, which provides a regular connection to operational water interactions and management. While fully integrating human rights considerations into operational mine water interactions is an ambitious target, tools such as the SWAP provide a vital step to establishing a connection between the assessment of human right impacts and water management.

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