DESIGN CHOICES & STAKEHOLDER VOICES

By Gavin Lee and Danielle Crawford

'Glory lies in the attempt to reach one's goal and not in reaching it.' - Mahatma Gandhi

1. There's gold in them there hills!

OceanaGold Corporation owns three hard rock gold mines in New Zealand: the Reefton Mine, currently in closure, and the operating Waihi and Macraes Mines, along with mines in the Philippines and the United States.

The Macraes Gold Project is located in North Otago. Mining of gold in Macraes is not a recent venture, with the first gold found in Deepdell Creek in 1862 and a series of gold rushes which lead to the population of Macraes swelling to 600 with 4 pubs in the 1870s. Since then miners and farmers have co-existed in various states of harmony.

Modern mining began production in 1990, a year before the Resource Management Act (RMA) was legislated. Since that time the Mine has produced over 5 million ounces of gold (about two mini vans), employed over 3000 people and contributed \$8.5 billion to the New Zealand economy. Given the average grade of gold is 1gram per tonne of ore, and 10 tonnes of rock need to be moved to get one tonne of ore, this is truly an astounding story.

Due to the nature of mining at Macraes, applications for resource consents (permits) are required on a regular basis. Although the scale and efficiency of mining has improved in 30 years, the general method of mining has remained the same.

2. In the beginning the RMA was created

The RMA recognises the need to seek views from parties affected by development, although does not strictly specify this as a requirement of the developer. Stakeholders and issues of interest are reasonably well understood however expectations on the standard of environmental and social performance of the mine are continually changing.

Consultation for consenting at Macraes has generally been conducted at or around the time the consent application is lodged. This form of consultation provided information on concerns, which the Company could respond to in hearings, but did little to allay those concerns. The Company became very reactive to issues that had the potential to lead to appeals.

3. We've got Standards, you know!

In 2019, we developed an approach for managing our social performance in a systematic way, helping us to understand and manage how our business affects the communities we live and work in, and broader society. The External Affairs and Social Performance Management System consists of Policies and Performance Standards that range from Human Rights through to Stakeholder Engagement and describes how we should listen to our communities, government and other stakeholders; understand their opinions, expectations and perceptions of how we operate; and demonstrate we have heard them by adapting the way the work. To do this, we use Informed Consultation and Participation (ICP) - the idea that people need to have the right information during early consultation, to have the ability to participate within decisions that may affect them due to some sort of development.

ICP is characterised by:

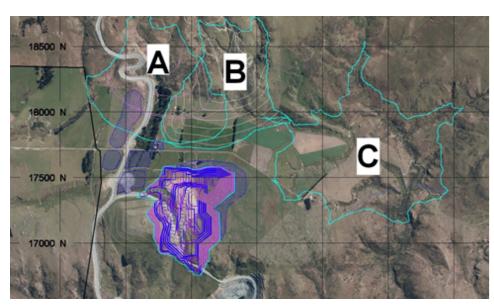
- In-depth exchange of views and information between OceanaGold, community groups and stakeholders;
- Disclosure of relevant company information that helps affected communities and stakeholders to understand the impacts, risks and opportunities of the business;
- Organised and iterative consultation by OceanaGold with communities on matters that impact them;
- Participation and partnerships with communities and stakeholders to identify impacts, develop mitigation strategies and/or enhance solutions;
- Participation of a broad spectrum of community voices, including informal and traditional leaders, formally elected and appointed leaders, families, women and vulnerable groups; and
- Formalised commitments and agreements for how OceanaGold, communities, and stakeholders will work together.

4. Augmenting Alternatives

A good mine design requires a robust assessment of alternatives early in the design process. An examination of alternatives is critical to sound decision making and can increase public participation and therefore result in better governance and sustainability¹.

The Deepdell North deposit had previously been mined in the early 2000s and then backfilled with mine waste from Deepdell South Pit. Changes in the gold price and improved mining efficiencies has meant that retrieving gold from deeper in the Deepdell North deposit is now economically feasible. Design work for the Deepdell North Stage III development commenced in late 2017.

Early in the design work alternatives were identified for the location of the Waste Rock Stack (i.e the rock that needs to be moved to allow access to the orebody. An internally developed multi-criteria analysis tool was used to assist in focusing on the most likely option and to help direct the scope for studies required for the consent application. The tool was updated as information about the physical, biological and social environment became available.



Initial alternatives A, B & C assessed for Deepdell North Waste Rock Stack. Mine Pit shown in purple.

Alternative Description	Technical Review	Financial Review	Community Relations Review	Heritage? Archaeology Review	Terrestrial Ecology Review	Water & Aquatic Ecology Review	Landscape and Visual Review	Stakeholder Review
	WRS construction method similar to other WRS at MGP and so	Budget for Waste Rock disposal based on this option.	Loss of pasture paddocks on land owned by OGL. Noise impacts to	Loss would include a the Bellfield Homestead, associated	Although a number of threatened and at-risk species found in the	Possible minor effects to flow in Highlay creek, and minor changes in water	Moderate to High effects from Horse Flat Rd view. Cumulative	Unlikely to raise issues for attention of NGO's or the media.
	challenges and risks well understood technically.		nearest farmhouse.	features and water race	footprint, it is not considered an important habitat for those species.	quality provided WRS seepage can be captured.	effects negligible to low.	
A Horse Flat West	Integrating the haul road from Coronation into the WRS would create additional technical challenges.	Similar costs for Alternative B	Loss of pasture paddocks and water supply on land not ownded by OGL. More significant noise effects to nearest farmhouse	Loss would include a the Bellfield Homestead, associated features and water race	Degraded/modificed habitat with low ecological value.	Possible minor effects to flow in Camp creek, and minor changes in water quality provided WRS seepage can be captured.		issues for attention of NGO's or the
C Horse Flat East	Additional technical challenge with stable disposal of waste rock in the valley.	Additional costs to allow for stable disposal of waste rock in the valley	paddocks on land owned by	Loss of Alluvial workings, associated features and a water race.	Bluff and shrubland habitats likely to be important habitat for threatened and at risk species. Area known to contain	Moderate effects to flow in Highlay Creek, challenges to effective seepage capture with possible increase to		Unlikely to raise issues for attention of NGO's or the media.

Multi-criteria analysis tool used to assist decision making of alternatives.

5. Going in early

As the studies kicked off, consultation with stakeholders began. Land use and the establishment of covenants as a form of biodiversity mitigation on Company owned land had been a lightening rod for appeals following previous consent decisions. It was recognised that if there was going to be any chance of heading off appeals early engagement would be critical.

An onsite meeting to bring the Councils, the Department of Conservation and the local community was held in April 2018 to discuss the options. Although nothing was resolved at the meeting, it was clear that a number of stakeholders had noticed the step change in how the mine was being designed.

The multi-criteria analysis tool was updated as a result of the April meeting and individual conversations conducted during this period.

6. Is that Hendrix in the feedback?



Lost or just confused? Ecologists standing in front of a 200 year old tree daisy, located in Option B. Olearia fimbriata is classified as Nationally Vulnerable² and is a rare species in the Macraes Ecological District.

With the studies wrapping up in mid 2018, it became clear that the preferred option had some serious flaws. A number of the criteria in the tool were turning from green to orange to red. Effects on water, aquatic ecology, terrestrial ecology, heritage and noise were proving more difficult than expected to manage. It became increasingly difficult to build a strong case for consenting any of the original alternatives for the waste rock stack location. A new location had to be identified.

It was then that reverberations from the April meeting seemed to resonate. One of the participants had questioned why the stack had not been constructed to the east of the Mine Pit. This had been identified in early brainstorming however discredited as an option due to perceived significant effects to landscape.

A risk assessment was subsequently conducted to examine the option (known as Option D) in more detail. Aside from the landscape effects, other aspects appeared more favourable in terms of the degree of impact.

As the timeline was not going to be met, the Project temporarily slid down the priority list.

7. Don't leave the party before its finished

Despite the de-prioritisation of the Project conversations continued. Recent history had suggested that the local pub was a more reliable and timely source of information about the Mine than the Company. This resulted in a form of 'Chinese Whispers', where stories became quickly distorted and people who were potentially affected by the Mine development experienced a range of emotions from grief to paranoia - this highlighted the need to manage Project information both internally and externally. Thus it was imperative that plans for Option D were not leaked until discussions had occurred with people directly effected (either from loosing leased land or exposed to noise).

Studies for Option D recommenced in 2019 with more encouraging results. Effects from the new waste rock stack were either avoided (heritage and aquatic ecology) or significantly reduced (water and noise). Terrestrial biodiversity offered an interesting conundrum. The effects to the biodiversity were significantly reduced for Option D except for the small matter of six ephemeral wetlands located within the footprint. Classified as Critically Endangered³, and looking, at the time, to be a clear focus of the freshwater reform by the New Zealand Government, ephemeral wetlands are prevalent across the Macraes landscape. The ecological conditions of the wetlands found in option D did not support the threat classification status. A site visit by DOC ecologist at the time supported this, but this was not the last we would hear of the issue.

Meanwhile as preparation for the consent application came to a climax, the application again became an agenda item in meetings with the local farming community and lwi. A 20 page summary document was prepared, condensing hundreds of pages of technical reports to an accessible and meaningful format, using non-technical language to ensure better comprehension for some stakeholders.

By the time the official notification period commenced in April 2020 (mid COVID-19 lockdown), OceanaGold was comfortable that all the main stakeholders were well informed of the Project and had been given suitable time to allow for feedback.

To our surprise, a negative submission was received from the Regional Council Policy team. Clearly, we had been blindsided, expecting that the Regional Council, who had been part of the discussion since 2018, was one consolidated stakeholder group and not a series of fragmented voices. Even more surprising were claims in the submission that 'avoidance' had not been adequately addressed, with the limelight on the ephemeral wetlands.

8. Searching for Common Ground



Farmers, Ecologists, Planners and Miners. How do you find a common language much less common understanding..

The hearing was shaping up to have all the hallmarks of a Greek Tragedy, including Rolling Stones quoting Commissioner and a gaggle of conferencing of Ecologists seeking an ephemeral wetland revelation.

Biodiversity was still a hot topic for both ecologists and farmers. The proposed mitigation package for effects on biodiversity had included the establishment of two biodiversity offsets (or protected areas). The social mitigation for this issue had started back in 2018 with the Common Ground Study, led by University of Otago. Common Ground⁴ sought to tease apart the values that underpinned land and land use of Macraes Flat. Stakeholder Groups (DOC, lwi, Councils, the Mining Company) were divided. Productive land vs land to be regulated or conserved, were the main themes. However, there was an emerging them of land valued for its multifaceted use. This value was motivated by a sense that there needs to be a better way of making land decisions. Creating good biodiversity outcomes could only be necessitated by involvement of all parties.

The Common Ground Study did not provide solutions. It was not the destination. But it did provide a platform for stakeholders to alight upon the conservation train. Planning for the biodiversity offsets had begun as far back as the beginning of 2019 with discussions with the farmers on identifying the least productive areas of their lease (and conversely had high biodiversity value). As the design matured, the farmers ideas on the details such as fencelines and tracks were incorporated. The offset proposal also included the use of the land for managed grazing, however unfortunately this was shot down, possibly a little too instinctively, by opposing voices at the hearing.

The biodiversity offset for impacts to the ephemeral wetland was established following an agreement with a farmer whose land is outside the immediate local community, thereby encouraging the antagonists to consider the opportunities rather than the threats.

Neither the Common Ground Study nor the mitigation engagement has managed to eliminate the issue for the farmer – they still made a negative submission – however it did show that the train had left the station.

9. Being taught nothing but learning everything

So what can we learn from this mellow drama:

- 1. DAD is dead: Design, Apply, Defend is no longer going to be acceptable to alert and aware stakeholders. If you follow the RMA too closely you are likely to be a DAD.
- 2. Trust the Process: To outsiders ICP can appear like it is placing the design in a vulnerable position. However vulnerability can be a strength if you are prepared to accept that you are not always right.
- 3. Tiny seeds: From tiny seeds can come the tallest trees in the forest. Having other parties engage with your stakeholders on issues that concern them, can assist in planting seeds.
- 4. Remain Flexible: You don't have to be an Olympic Gymnast, but if you are going in early you need to be receptive to what you are hearing.
- 5. Ch, ch, ch, changes: In being more inclusive with stakeholders, don't just expect change but proactively promoting change will only strengthen your position.

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