

# **Benchmarking the Environmental Protection Authority's Assessment Process**

Andrew Mack, Associate Director, Talis Consultants Pty Ltd

## Abstract

Talis recently completed a scope of work that considered a number of individual projects and looked at the impacts and associated assessment process conducted by the Environmental Protection Authority (EPA) on each.

The aim of the work was to 'benchmark' EPA assessments against each other based on their location (selected on the basis that they were located in areas considered to be environmentally sensitive) and assessment process (i.e. Assessed at *Public Environmental Review* (PER) or *Assessment on Proponent Information* (API) or *Not Assessed*).

Talis conducted a review of eight EPA assessments carried out detailing the nature of the proposal, level of impacts and conservation value of the project area; and the level and outcome of the assessment. Our work considered the following:

- Level of assessment;
- Outcome and justification of the assessment;
- Nature/characteristics of the proposal;
- The value of the environment within the project area;
- Level of impact project has on the wider environment and its environmental value; and
- Whether the Factor of 'landform' was considered during the EPA's assessment process.

This information was sourced from the EPA assessment documentation, Proponent documentation (PER/API documents) and websites for the formal assessment process and from the EPAs Statement of Reasons and other project related documentation such as Mining Proposals (if available) for the informal assessment process.

Individually assessed projects were then summarised and the key characteristics benchmarked against the other assessed projects. This exercise allowed Talis to compare similarities between the projects and draw a conclusion whether EPA assessment process was consistent for all projects.

The objective of this work was not to criticise the EPA's process across each discrete project. Nor was it to question the conclusions reached by the EPA on the level of assessment set. Rather, the critical aspect of the whole process was to attempt to understand the approach taken between projects and whether there was a clear and consistent approach taken by the EPA that would stand up to scrutiny.

The work completed by Talis suggests that such uniformity in approach is not present and that there are significant differences in how environmental issues are evaluated and considered by the EPA.

## Introduction

The recent decision by the Western Australian (WA) Supreme Court (SCWA) in relation to the Roe 8 project has sent a few ripples throughout the WA environmental approvals landscape.

These ripples not only affect the way that the State Government and particularly, the Environmental Protection Authority (EPA) does its job, but also the associated industries seeking approval, given the associated timeframes and information requirements for progressing an environmental impact assessment process.

On the basis of the findings of the Supreme Court (WASC482 found at <http://decisions.justice.wa.gov.au/supreme/supdcsn.nsf/main.xsp>), the critical aspect of the process is associated with the consideration of offsets within the EPA's assessment process. The SCWA found that the EPA's report to the Minister for the Environment (the Minister) included no documentation or reference to the EPA's policies regarding offsets and their inclusion within an assessment framework. The findings suggested that, there was no appropriate commentary within the EPA's report to the "proposition that in light of the EPA's conclusions with respect to the environmental impact of the Proposal, environmental offsets would not be an appropriate means of rendering the proposal environmentally acceptable..."

Further to this, the SCWA noted that "the report which the EPA provided to the Minister embodied the assumption that the Proposal would be environmentally acceptable if adequate offsets were provided."

Consideration of the three EPA Policies relating to offsets within the EPA assessment framework was found by the SCWA not to have occurred. As a result of this and within the proper framework of Part IV of the *Environmental Protection Act 1986* (EP Act), the court concluded that the EPA's assessment of the proposal was invalid and consequently, the Minister's decision to allow the Proposal to be implemented was also found to be invalid as it was made in reliance on the EPA's report and recommendations.

Whilst the State Government has requested that the EPA reassess the project following the SCWA decision and is indeed appealing said decision, there are still significant implications of this decision on current and future proposals being put forward pursuant to Part IV of the EP Act.

The Minister has also announced a 'Legal and Governance Review' of the EPA's practices for the development and application of policies, guidelines and procedures for environmental impact assessment. The three-member team, led by Mr Peter Quinlan SC will conduct the review subject to a number of terms of reference which are to consider the following:

1. the EPA's practices for development of policies and guidelines;
2. the content, clarity and consistency of policies and guidelines;

3. processes to ensure policies and guidelines are given due consideration during assessments and in the EPA's reporting; and
4. any other matters related to the application of policies and guidelines which could affect the EPA's capacity to fulfil its statutory duties to undertake assessments (including potential amendments to the *Environmental Protection Act 1986* (WA)).

As the EPA has noted, "With the review proceeding and changes being progressively implemented, there will be some impacts to be progress of current assessments" and that existing assessments should be "undertaken in as legally robust a manner as possible."

The work being completed is obviously very much focussed around the application of EPA Policies and Guidance across the range of projects they consider. This obviously has ramifications in terms of assessment processes, procedures and timelines.

Talis recently completed a suite of work that considered this very same subject, but from a different perspective. Our work considered a number of individual projects and looked at the impacts and associated assessment process conducted by the EPA on each.

The aim of the work was to 'benchmark' EPA assessments against each other based on their location (selected on the basis that they were located in areas considered to be environmentally sensitive) and assessment process (i.e. Assessed at *Public Environmental Review* (PER) or *Assessment on Proponent Information* (API) or 'Not Assessed')

Talis conducted a review of EPA assessments carried out detailing the nature of the proposal, level of impacts and conservation value of the project area; and the level and outcome of the assessment. For the purpose of the assessment, Talis shortlisted eight projects to be further assessed.

## **Methodology**

The eight shortlisted projects were assessed in more detail for the following details:

- Level of assessment;
- Outcome and justification of the assessment;
- Nature/characteristics of the proposal;
- The value of the environment within the project area;
- Level of impact project has on the wider environment and its environmental value; and
- Whether the Factor of 'landform' was considered during the EPA's assessment process.

This information was sourced from the EPA assessment documentation, Proponent documentation (PER/API documents and websites for the formal assessment process and from the EPAs Statement of Reasons and other project related documentation such as Mining Proposals (if available) for the informal assessment process.

Individually assessed projects were then summarised and the key characteristics benchmarked against the other assessed projects. This exercise allowed Talis to compare similarities between the projects and draw a conclusion whether EPA assessment process is consistent for all projects.

The findings of the assessment are summarised in the Table 1 below.

It is important to note that the objective of this work was not to criticise the EPA's process across each discrete project. Nor was it to question the conclusions reached by the EPA on the level of assessment set. Rather, the critical aspect of the whole process was to attempt to understand the approach taken between projects and whether there was a clear and consistent approach taken by the EPA that would stand up to scrutiny.

**Table 1: Short-listed Projects**

Level of Assessment	Date	Company	Project	Description of Project	Area of Disturbance	Commentary
API-A	4 June 2014	Polaris Metals Pty Ltd	Jackson 4 (J4)	The proposal is comprised of an iron ore mine and infrastructure on Mining Lease M77/1242, as well as a haul road and accommodation camp on Miscellaneous Licenses L77/250, L77252 and L77/254 in the Goldfields region.	104ha	<p>The proposed mine is located within the Mt Manning region, 8 km from the Helena-Aurora Range. Haul road traverses the corner of the Helena-Aurora Conservation Park.</p> <p>The J4 deposit is a low-lying outcrop of BIF, separated by gaps between the hills of the Mt Jackson Range to the west, and the Helena-Aurora Range to the east.</p> <p>The proposal will result in the permanent loss of BIF landform and its associated environmental values. However, the proposal area is considered to be sited in lower environmental value BIF, due to its separation from main ridgelines and low relief.</p> <p>Surveys undertaken did not identify any Declared Rare, Threatened or endemic species in the proposal area.</p>
PER	2010	Cliffs Asia Pacific Iron Ore Pty Ltd	Koolyanobbing Iron Ore Project – Mt Jackson J1 Deposit	Two mine pits and associated mining infrastructure.	605 ha	<p>The proposed mine is located within the Mt Manning region on a section of BIF range which forms part of a series of ridgelines of BIF within the Yilgarn Region of Western Australia.</p> <p>This region falls within the Great Western Woodlands which cover 60 million ha and is currently considered to contain 3000 flora species. The Woodlands are the subject of a 2010 “Biodiversity and Cultural Conservation Strategy” authored by the former DEC.</p> <p>Approximately 13 ha of the proposed haul road occur within the Class A Nature Reserves including the Die Hardy/Jackson/Windarling Ranges.</p>

Level of Assessment	Date	Company	Project	Description of Project	Area of Disturbance	Commentary
Not assessed – public advice given	18 August 2014	Sirius Gold Pty Ltd	Nova Nickel Project	An underground mine for nickel and copper and associated roads and infrastructure.	1,100ha	This project is located within Fraser Range in the Great Western Woodlands.  No mention of BIF ranges. It is claimed that the proposal footprint has been designed so as to almost entirely avoid any clearing of Priority Ecological Communities (PEC).
PER	November 2014	Mount Bruce Mining Pty Limited	Koodaideri Iron Ore and Infrastructure Project	An open cut iron ore mine and ore processing operation.	65,888ha	Whilst this project is not associated with a BIF range, it is located partially within the Marillana 2015 Area which is proposed for conservation tenure. The proposal is also located in close proximity to the Fortescue Marsh and Karijini National Park.  Extensive offsets have been proposed to offset the environmental impact associated with the project.
Not assessed – Public Advice Given	April 2013	Golden West Resources	Wiluna West Iron Ore Mining	An iron ore mine located approximately 40 kilometres west of Wiluna which has an approximate life of 15 years.  The proposal will result in clearing of a maximum 2600 hectares.	2,600ha	Located on a West Wiluna BIF PEC, however Landform has not been assessed as part of the EPA's assessment. Active Malleefowl mounds have been found within the project area.
PER	February 2014	Fortescue Metals Group Limited	Christmas Creek Iron Ore Mine Expansion	The proposal is for the expansion of the existing Christmas Creek mine for the development of an open-cut, strip mining iron ore mine.	No more than 18,335ha (total for the area)	The proposal will involve mining of BIF material. The Cloud Break, Christmas Creek, Mount Nicholas, Mount Lewin and Mindy Mindy iron deposits are located in the East-Southeast elongated Chichester Range in the Pilbara of WA.  These ranges are not part of the BIF strategic review and it would appear that their environmental value had therefore not been quantified or considered.  EPA Scoping documentation suggests a considerable range of factors require consideration during the assessment process and extensive offsets have been proposed to offset the environmental impact associated with the project.

Level of Assessment	Date	Company	Project	Description of Project	Area of Disturbance	Commentary
API-A	January 2014	Chevron Australia Pty Ltd	Gorgon Gas Development – additional construction laydown and operations support area	Laydown area and operations support area	32ha	<p>The project is located on Barrow Island which is a Class A nature reserve.</p> <p>The use of land on Barrow Island for gas processing is provided for in the <i>Barrow Island Act 2003</i> for up to 300ha of uncleared land.</p> <p>This proposal required an amendment to the Barrow Island Act 2003 for the additional clearing of uncleared land from 300ha up to 332ha.</p>
PER	December 2014	Mount Gibson Mining Ltd	Iron Hill Deposit	<p>The Proposal would operate as a satellite to the existing Extension Hill mining operations as part of the approved Mount Gibson Iron Ore Mine &amp; Infrastructure project.</p> <p>Proposal comprises the following components: mine pit, WRD and supporting infrastructure.</p> <p>Likely to be subject to Ministerial Statement 753.</p>	75ha	<p>The proposed mine is located within the Mt Gibson Range BIF PEC. There are significant direct and cumulative impacts on specially protected flora and fauna.</p>

## Discussion

In undertaking this work, it is important to recognise that it was not the intention of the review process to criticise the EPA administrative process nor the outcome of the assessments. Rather, the purpose of the work was to review the issues that the EPA took into consideration within their process and provide a comparison of these in terms of the assessment completed and outcomes of that process.

It is clear that there are a variety of projects with a large range of environmental considerations that form part of the projects and the Environmental Impact Assessment (EIA) process that has been undertaken. All projects could be considered to be contemporary with respect to the assessment process with the oldest assessment being conducted in 2010 (Koolyanobbing) and the most recent being the Iron Hill Deposit project from December 2014. It would therefore be expected perhaps that some commonalities within the assessments could be identified or that there would be similarities in terms of the final determinations.

Whilst this could perhaps be argued in some ways, it is worth pointing out that there are potentially numerous discrepancies in the EPA's consideration that warrant further attention.

For example, the issue of development within areas of BIF arises through a number of projects, but how this is considered varies considerably, particularly in light of the EPA's views pertaining to mining within BIF environments and recent upheld appeals in this regard. The Jackson 4 project, Mt Jackson J1 deposit, Christmas Creek and Iron Hill projects all involve impacts to BIF and yet were all allowed to be considered through an assessment process by the EPA. It is worth noting in this regard, the potential impacts from each of these. Of particular interest is FMG's Christmas Creek project which incorporates mining within areas of BIF that are not yet well-understood, but such consideration of such impacts was not apparent within the EPA's overall review of the project.

Notably in this regard, significant clearing was proposed in an area noted by the EPA to be of high conservation significance with significant impacts to mulga vegetation and the hydrological regime of a large area of land in the Fortescue Marsh. The documentation suggests that 36% of mulga vegetation within the project area would be cleared with significant drawdown depths (~2m) expected within the fringe of the Fortescue Marsh. The work goes on to note that only about 45% of this area will recover within 50 years. It is worth reiterating that over 18,000 ha of clearing within a sensitive environment was proposed as part of the Christmas Creek project. This project received a PER level of assessment which needs to be considered in terms of the EPA's findings with respect to other projects considered.

The Iron Hill project is also one of note in relation to clearing within BIF areas. This project involved a 3% increase to the area of the Mt Gibson BIF range being disturbed (to a total of 37%). Further to this, there were significant impacts to individual species including the *Darwinia masonii* and *Lepidosperma gibsonii* populations. Landform was not considered by the EPA in their assessment of this project

despite significant cumulative impacts being noted by the EPA within a project area of just over 70 ha. Further to this, the EPA also identified that rehabilitation of the BIF areas should be considered.

The issue of landform is important in the context of this comparison and is a topical concern with respect to the EPA's assessment process on a number of high-profile projects. The EPA's consideration of a number of recent projects and their final decision very much focussed on landform as the overriding factor as to why the proposals could not progress. Talis therefore felt it was important to consider this factor across the other projects identified and assessed as part of the work. Of the eight projects, only the Polaris J4 project incorporated 'Landform' as a relevant factor of consideration by the EPA. This is despite significant apparent changes to landforms throughout the five other projects. Such examples include:

- Koolyanobbing - 605 ha of clearing (including two pits and associated infrastructure) within the Greater Western Woodlands area;
- Koodaideri - ~65,000 ha of clearing in an area proposed for conservation tenure and in close proximity to the Fortescue Marsh and the Karijini National Park;
- Christmas Creek - ~18,000 ha of clearing within the Fortescue Marsh area (identified by the EPA as being a sensitive environment and requiring significant attention), including BIF areas which are not considered under the BIF Strategic Review;
- Gorgon – Clearing of an additional 32 ha (10% additional land) on a Class 'A' Nature Reserve; and
- Mt Gibson – Clearing of 75 ha for a pit, Waste Rock Dump and associated infrastructure within BIF ranges (with 72 ha of the BIF PEC being disturbed as part of this project).

Talis is of the view that such impacts could involve disturbance to Landform. The EPA's objectives in this regard are to "Maintain the variety, integrity, ecological functions and environmental values of landforms and soils." Based on the information available, Talis felt it would be hard to argue that the projects identified above satisfy this requirement. In keeping with this, Talis therefore concluded that, at least from a Landform perspective, the consideration of each proposal was not consistent and the assessment process is perhaps inherently arbitrary.

This suggestion is also supported through suggested inconsistencies in which the EPA has assigned values to the environmental features of each of the project areas. Of note in this regard is the EPA's 2012-2013 Annual Report which identified the Fortescue Marsh as a 'Pressure Point' noting that "The intersection of the high environmental values of the marsh and the extent of mining and infrastructure development has highlighted this area as a priority for the EPA." This is supplemented by their Section 16(e) advice to the Minister for Environment on specific considerations relating to mining and mining-related activities in the Fortescue Marsh management area. Talis is not contesting the EPA's decision to assess the Christmas Creek project via PER, which involves, amongst other issues:

- Significant clearing in an area noted by the EPA to be of high conservation significance including impacts to mulga vegetation, considered to be ecologically important, having unusually high biodiversity and providing important habitat for fauna;
- Large-scale cumulative regional impacts;
- Significant changes to the hydrological regime, particularly in terms of surface water flow and drawdown impacts (and associated implications for groundwater dependent ecosystems); and
- Impacts to BIF in an area not considered by the BIF Strategic Review documentation (with the potential impacts not quantified or considered in as much detail as projects within the ambit of the Strategic Review).

Instead, Talis suggests that a comparison of this project and its associated impacts (noting in addition the significant array of offsets being proposed to respond to the residual impacts of the proposal) should be undertaken against other projects to identify how such assessment processes have been undertaken and to seek clarity and reassurance that there is a common approach employed.

The Koodaideri project is in a similar category to the Christmas Creek project. Koodaideri again involves a significant array of impacts, including:

- Significant clearing across the project area (~65,000 ha) including within a proposed conservation park;
- Significant impacts to the Koodaideri Spring Gorge (including Koodaideri Spring and associated unnamed creek and pools), through the removal of 40% of the surface water catchment;
- A reduction of peak flow/flood events (95 per cent reduction of the East Branch and 42 per cent reduction of the West Branch for the 100-year flood event); and
- Offsets again proposed for significant residual impacts.

The range of factors considered by the EPA in their assessment of this project is extensive, but the factor of Landform does not seem to have been one of them, despite the proponent's documentation indicating over 65,000 ha of disturbance would occur. Such concerns could also be raised in relation to the other projects identified and discussed above.

In this regard, the nature of impacts also needs some consideration. Whilst there is no doubt that smaller areas of impact within more sensitive environments may be considered to be unacceptable, this does not preclude the same conclusions being drawn for large-scale impacts over less-sensitive environments. Talis contends that there must exist a 'tipping point' at which large areas of clearance or disturbance must constitute an unacceptable impact, particularly in terms of the 'Landform' factor. Certainly it is suggested that large-scale clearing and land disturbance must at some stage constitute a significant impact worthy of significant consideration.

Taking a broader view of the approach taken by the EPA in relation to the benchmarked projects, it is worth considering one of the Principles of EIA for the EPA identified within the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*. This identifies that the goal is to ensure that “the process is procedurally fair and that all relevant EPA policies, guidelines and procedures are publicly available and are applied fairly and consistently.”

Whilst it should be reiterated that Talis did not seek to criticise the outcomes of each assessment process undertaken by the EPA, on the basis of what has been reviewed Talis suggests that there may be discrepancies between what has been undertaken and the requirements of the Administrative Procedures detailed above. This obviously raises concerns in terms of the consistency of the assessment process undertaken by the EPA and subsequently, the defensibility and reproducibility of the outcome which was reached.

## Summary and Conclusion

Talis was engaged to undertake a benchmarking review of a number of resources projects considered by the EPA with the intention to provide a comparative assessment of the environmental issues for each project, the Factors considered by the EPA and how these were considered by the EPA in their assessment process.

As previously identified, the objective of this work was not to criticise the EPA's process within each discrete project. Nor was it to question the conclusions reached by the EPA on the level of assessment set on an individual project level. Talis maintains that such an approach should consider each project on its merits and this is clearly how the EPA has gone about its work. The critical aspect of the whole process was to attempt to understand the approach taken between projects and whether there was a clear and consistent approach taken by the EPA that would stand up to scrutiny.

The work completed by Talis suggests that such uniformity in approach is not present and that there are significant differences in how environmental issues are evaluated and considered by the EPA. The projects demonstrate a range of significant impacts across a variety of landforms and yet it was precisely the factor of Landform that was omitted in all but one of the projects considered by Talis.

Principle 5 for the EPA of the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012* states that the process of environmental impact assessment should be "procedurally fair and that all relevant EPA policies, guidelines and procedures are publicly available and are applied fairly and consistently." The work completed by Talis, at least with respect to the eight projects considered, suggests that this Principle has not been adhered to and that further work is needed from the EPA to work towards this principle.

Whilst not directly related to the findings of the WA Supreme Court in relation to the Roe 8 decision, our findings suggest that there are at least discrepancies in terms of how assessments are undertaken between projects. There are factors that have been considered within certain assessments that have not been within others and we maintain that there are some aspects of individual proposals that yield questions in terms of how a particular outcome could have been reached when compared to others.

As Justice Martin said in his decision "I have concluded that the EPA must take into account all relevant administrative procedures, assessment criteria and policies which it has promulgated and which are operative at the time it undertakes an assessment of the environmental impact of any proposal." This conclusion, taken at face value, should ensure that there is procedural fairness (as identified within Principle 5 above) within an assessment process but that there is also equity between assessment processes, thus ensuring a level playing field for proponents, stakeholders and the community alike.

The work that Talis has completed appears to align with this goal and those established by the Minister in the announcement of the 'Legal and Governance Review' of the EPA's practices. Ultimately, what is

being sought is parity of assessment, certainty in terms of the outcome and defensibility and reproducibility of that outcome. Such 'standards' should ensure that there is resilience in the process and ultimately, a much more robust assessment process.

## References

- Chevron, (2014). *Gorgon Gas Development Fourth Train Expansion Proposal PER*.
- Cliffs Asia Pacific Iron Ore, (2009). Public Environmental Review – Response to Public Submissions. *Koolyanobbing Iron Ore Project, Mt Jackson J1 Deposit*.
- Cliffs Asia Pacific Iron Ore, (2010). Mining Proposal. *Koolyanobbing Iron Ore Project, Mt Jackson J1 Deposit*.
- Department of Environment and Conservation and Department of Industry and Resources “Banded Ironstone Formation Ranges of the Midwest and Goldfields – Interim Status Report”, 2007
- Environmental Protection Authority, (2006). Report and Recommendations of the Environmental Protection Authority (EPA Bulletin 1242). *Mt Gibson Iron Ore Mine and Infrastructure Project*.
- Environmental Protection Authority, (2010). Report and Recommendations of the Environmental Protection Authority (EPA Report Number: 1347). *Koolyanobbing Iron Ore Project – Mt Jackson J1 Deposit*.
- Environmental Protection Authority, (2013). Notice Under Section 39A(3) (ref: A583954). *Wiluna West Iron Ore Mining Operation*.
- Environmental Protection Authority, (2014a). Report and Recommendations of the Environmental Protection Authority (EPA Report Number: 1511). *Jackson 4 Iron Ore Mine and Haul Road*.
- Environmental Protection Authority, (2014b). Notice Under Section 39A(3) (ref: 14-848947). *Nova Nickel Project*.
- Environmental Protection Authority, (2014c). Report and Recommendations of the Environmental Protection Authority (EPA Report Number: 1533). *Koodaideri Iron Ore and Infrastructure Project*.
- Environmental Protection Authority, (2014d). Environmental Scoping Document (Assessment No. 1989). *Christmas Creek Iron Ore Mine Expansion*.
- Environmental Protection Authority, (2014e). Report and Recommendations of the Environmental Protection Authority (EPA Report Number: 1499). *Gorgon Gas Development – Additional Construction Laydown and Operations Support Area*.
- Fortescue Metals Group, (2015). Public Environmental Review. *Christmas Creek Iron Ore Mine Expansion*.
- Golden West Resources Limited, (2010). Revised Mining Proposal. *John William Dutch Open Pit Joyners Find Deposit Wiluna West Iron Ore Project*.
- Government of Western Australia *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*
- Mount Gibson Mining Limited, (2014). *Extension Hill Hematite Project – Addendum to Mining Proposal*. Registration ID: 36990.
- Polaris, (2013). *Assessment on Proponent Information – J4 Iron Ore Mine and Haul Road*.
- Rio Tinto, (2014). Public Environmental Review, Response to Submissions. *Koodaideri Iron Ore Mine and Infrastructure Project*.
- Save Beelihar Wetlands (Inc) v Jacob [2015] WASC 482
- Sirius Gold, (2014). EPA Referral. *Nova Nickel Project Supporting Document*.