



# **Counting What Counts:**

## **External verification of the Australian Minerals Industry Code for Environmental Management**

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**and**

**PDAP Advisory Group**

**DMR-1124**

## Foreword from Advisory Group

*Not everything that counts can be counted,  
And not everything that can be counted, counts.*  
Albert Einstein

When trying to implement change, it can be both a frustration and a delight to be reminded of the interwoven complexities of our physical and cultural world. The challenge is to keep our eyes on those intangibles that are important to us, and to remember there is more in the world than what can be measured.

When Placer Dome Asia Pacific (PDAP) committed to external verification of its implementation of the Australian Minerals Industry Code for Environmental Management, it treated the exercise as a research opportunity. As individuals or representatives of diverse organisations, we were invited to be a part of an Advisory Group to oversee the verification and provide an assessment of the process. Our task was to provide guidance to PDAP for future external verification processes and their role in improving public accountability.

CSIRO and the Advisory Group have produced this report to communicate what has been learned from this exercise to date. We have been observers to the process, and have attempted to bring together the experiences of all those who played a part. We have reflected on other models of verification to see what might successfully transfer to the environmental management of the minerals industry. We outline options for a more streamlined verification process to be evaluated later this year.

We hope you find this report useful.

CSIRO and Advisory Group

## Acknowledgements

This report draws from the thoughts of many people. Contributors of time and ideas to the project are gratefully acknowledged.

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## Foreword from PDAP

Placer Dome Asia Pacific (PDAP - previously Placer Pacific Limited) was actively involved in the development of the Australian Minerals Industry Code for Environmental Management (the Code). Feedback from both Code consultation and our own stakeholder engagement processes highlighted the need for independent verification to achieve credibility.

Independent verification is also an important element of Placer Dome Inc's (PDI) Sustainability Policy which was approved in early 1998. In PDAP's 'Towards Sustainability - 1997 Progress Report', published in early 1998, we acknowledged the issue of independent verification and committed to undertake external verification of our Code implementation. Our overall objective is to develop the public accountability processes required for us to maintain (and enhance) our 'licence to operate' from society.

Further support for external verification came from external advocacy groups. They indicated that an appropriate verification model for Code implementation was not available and encouraged us to develop our own process. At the same time, we recognised that a Code assessment protocol developed by another mining company (RGC Limited) in consultation with Pricewaterhouse Coopers was a valuable tool.

Therefore, we decided to explore the broader issues associated with independent verification, not limited to the Code. This evolved into a multi-faceted approach involving two different auditing approaches: an independent Advisory Group to oversee the process; and CSIRO Minerals to observe and analyse the whole exercise.

The decision to have CSIRO Minerals and the Advisory Group publish this report on the process reflects our belief that there is considerable value to be obtained from the learning process and not just the verification results. However, this has not been an easy exercise and many of those involved have found the rapidly evolving nature of the process uncertain and frustrating.

We thank all of our own people and our external partners who have remained committed throughout the process to explore a better way of doing business. We still do not believe we have all the answers but this report suggests we have made substantial progress and we remain committed to continue to pursue independent verification which meets the needs of all our stakeholders. We also hope that you find the information in this report challenging and useful.

Placer Dome Asia Pacific Limited  
25 July 1999

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## Introducing the Concepts

In 1998, Placer Dome Asia Pacific (PDAP) committed to the design and implementation of an external verification process to assess their implementation of the Australian Minerals Industry Code for Environmental Management (The Code). The Code is a voluntary industry initiative consisting of a series of nine principles meant to address a perceived lack of industry credibility with the community. Signatories are required to commit to continuous improvement and public reporting of environmental performance, and to audit, using externally accredited auditors, their compliance with the Code every three years.

Issues of credibility and accountability are unlikely to be addressed by the Code without external verification. The concept of accountability can be summarised as the duty of an organisation to provide an account to society of its actions. Verification brings in a third party to vouch for the quality of the account. An account may be a retrospect statement, such as a public report, or it may be an ongoing commitment, such as the Code.

Two main styles of verification are explored in this report. A 'Systems Style' verification uses a generic template or protocol to gauge whether the necessary elements of a management systems are in place. A 'Principles Style' verification seeks to ensure that values espoused are actually being applied or are creating the desired performance. The two styles trialled presented an opportunity to research the process.

## Scope of Verification

An Advisory Group was formed for the research project, and CSIRO undertook to co-ordinate the considerations of this group and oversee the processes conducted on site. A verification team was assembled and given three key tasks: a 'Systems Review' to be performed by PriceWaterhouse Coopers; a 'Principles Review' to be performed by EMC International; and a 'Placer Dome Code of Conduct Review', also to be performed by EMC International.

Verifications were carried out at three of PDAP's operations: two in Queensland and one in Papua New Guinea. The process at each operation involved tours and inductions, interviews with key staff, checks of documentation and a meeting with site stakeholders. One of the operations had prepared a more structured program for the verification team which included formal management presentations on the Code and a concurrent ISO 14001 gap analysis.

## Learning from the Process

Feedback from the operations centred on the 'Systems Review'. The focus on systems was thought to go into too much detail, duplicated other auditing procedures, and presented a more prescriptive notion of Code compliance. The outcomes were another key concern: quantified scores oversimplified the judgments being made. Suggestions for improvement from the Reviews would have been valuable.

Each operation had expressed their implementation of the Code through a different focus: an issue of closure, a strong workplace culture, or a systemic management style. Two of the three sites had not been expecting a detailed systems style audit. The different expressions of implementation and expectations for the verification may have affected the process.

The Systems Review protocol struggles with overlap within the Code and the operations indicated that it needs streamlining to avoid duplication. Quantified results tend to promote illusions of objectivity and comparability. On the whole, verifying management systems should not be the central methodology for the Code verification. Both methodologies used would have benefited from a more rigorous informant selection process.

A good record of how assessments are reached is important for subsequent comparisons. The collection of detailed data, while railed against by the operations, would provide context for recommendations. The accounts of stakeholders are another important source of data, and these may need to be sourced off site.

The ability to compare outcomes across the industry is understandably desirable but ultimately questioned. Even reporting progress of each site is likely to benefit those who need to progress the most. In all, there needs to be a shift towards measuring performance rather than systems in place, and an acknowledgement of the subjectivity that this brings. A mix of metrics will be needed to convey information simply.

Auditors will need a knowledge of environmental and social issues for the minerals industry, as well as appropriate experience. The dilemma of companies paying for verifications and thereby potentially reducing their independence is an issue, but ultimately the company will need to resource verifiers if verifications are to take place. Other structures to decouple this link can be considered.

Stakeholders of the operations saw the verification process as an indication of PDAP's credibility. In the longer term, stakeholders need to begin participating in verification to bring in wider perspectives and local context. Motivation and availability are some of the potential barriers, but involvement in regional forums may be a compromise.

There was concern at the expense of verification. In the first instance, the process should be integrated into existing procedures. Thought should also be given to how it can provide return on its investment in the short and long term, perhaps through improved relationships with stakeholders.

## Recommendations

Code implementation is clearly important to PDAP, but it is a means to an end and not an end in itself. The critical issue remains environmental performance and the credible communication of that performance. Verification shouldn't be carried out for its own sake, but for real advances in accountability and sustainability.

The Advisory Group's wish list for verification is:

1. Involvement of stakeholders
2. Focus on performance
3. Transparency
4. Independence
5. Value adding

The audiences for verification and their expectations still need to be clarified, either corporately or at the operations level. PDAP then needs to decide whether to:

- continue verifying Code implementation (with the existing methodology for comparability, or with a revised methodology focussed on performance); or
- verify implementation of the Placer Dome Sustainability Policy, also with a focus on performance.

Problems of overlap and definition within the Code suggest that verification of PDAP's Sustainability Policy may provide more relevance. However as a current signatory to the Code, PDAP have an obligation to verify their compliance.

In either case, the model of accountability presented shows the three parties - the operations, the external verification team and stakeholders - as part of an ongoing dynamic. This dynamic needs to be structured and made transparent for each formal verification exercise.

The key recommendations from the Advisory Group are to:

- Use a mix of *quantitative* and *qualitative* methodologies.
- Use a more *rigorous* informant selection process and spend time with stakeholders in their own environments.
- Verify the *performance* of operations in the *context* of stakeholder issues.
- Minimise demands on *business unit time* by scheduling, and to the degree possible, integrating Code verification with other audit processes.
- Give *recommendations* and *suggestions* to the operation on opportunities to improve and share best practice within the industry.
- Convey the verification results in a *simple* form.

With regards to involving stakeholders, we recommend:

- Developing the verification methodology with participation of stakeholders in the process as a key objective.
- Developing a primer to introduce members of the community and other stakeholders to the Code, how it is assessed, and how it links with the PDAP Sustainability Policy and other initiatives.
- Creating long term plans to involve stakeholders in a local or regional dialogue on issues of sustainability performance and issues that they perceive resulting from mine operations that either directly or indirectly affect them.
- Investing in the capacity of groups to participate in long term partnerships and relationships.

If members of the Advisory Group are available, it is recommended that:

- The Advisory Group be retained to oversee a second phase of external verification and provide continuity for comparative assessments of the changes from this first phase (Phase 1).
- The Advisory Group have input into a revised methodology prior to the commencement of the next phase (Phase 2) for the verification project.
- A final report be issued to PDAP, drawing on this interim report and the activities of Phase 2.

### Placer Dome Asia Pacific

Placer Dome Asia Pacific (PDAP) is 100% owned by Placer Dome and operates in the Asia Pacific region on its behalf. PDAP manages and operates five mines, three in Australia and two in Papua New Guinea, and has assumed responsibility for the rehabilitation of the 1996 tailings spill at the Marcopper mine site in the Philippines. In 1997, gold production from these five mines totaled more than 1.6 million ounces. [1]



**Figure 1 - Map of PDAP operations in Australia and Papua New Guinea**

In 1998, PDAP released a Sustainability Progress Report containing a number of commitments. This project and its report particularly relates to PDAP's commitment to:

Design and implement, in partnership with interested stakeholders, an independent and external verification process for monitoring our implementation of the *Code for Environmental Management*. (July 1998 to September 1999) [1]

### Australian Minerals Industry Code for Environmental Management

The Australian Minerals Industry Code for Environmental Management (the Code) is a set of nine principles guiding better environmental management and thirty-eight management systems designed to give effect to those principles. Launched in December 1996 as 'the centrepiece of a new commitment to respond to community concerns' [2], its objectives were:

- To facilitate industry-wide improvement in environmental performance;
- To provide a transparent and consistent framework for environmental management;
- To strengthen relations with stakeholders;
- To enhance the community credibility of the Australian minerals industry. [3]

The Code's nine key principles are:

- Sustainable Development
- Environmentally Responsible Culture
- Community Partnership
- Risk Management
- Integrated Environmental Management
- Performance Targets

- Continual improvement
- Rehabilitation and Decommissioning
- Reporting

A full copy of the Code detailing the 38 systems supporting these nine principles is found in Appendix 2. There are currently 43 voluntary signatories to the Code.

The Code is a collective industry initiative and is voluntary, meaning that actions taken under it go beyond existing environmental laws and regulations. [4] Signatories are required to prepare annual public environment reports within two years of registration, describing their performance in relation to the key principles above. In addition, implementation of the Code is to be evaluated by accredited auditors, either internal or external to the company, at least every three years. [2] There is not yet a standard process for external verification of Code performance.

## Verification and Accountability

Some NGOs believe that the Code will not resolve the issue of community credibility it set out to address without external verification. [5] Broader concepts of verification have evolved from the inability of financial accounting to 'account' for a growing list of social, ethical, environmental and political problems. [6] In the expansion of public concern about business activities - from an economic, to an environmental, social and now sustainable development focus - the corresponding 'accounting' practice has not yet become well-established, systematic or regulated.

**Accountability** is a concept that describes flows of information - those controlling resources provide accounts to society of their use of those resources. Accountability has been defined as:

*"The duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible". [6]*

At its essence, this is a relationship which implies *rights* of an 'accountee' (such as the community) to know and *responsibilities* of an 'accountor' (such as a company) to act and inform. Discharging accountability may go beyond legal to moral responsibilities, particularly in the sphere of environmental, social or sustainability accounts.

**Verification** brings a third party to the relationship between accountor and accountee to vouch for the quality of the account. Two main types of account could call for verification:

- a retrospective statement, such as a profit and loss statement or a public environment report; or
- an ongoing commitment, such as being a signatory to the Code or a company policy on human rights.

Within these accounts, the focus of verification could include data (is it true), testimonies (is it really happening), values (are they in use), systems (are they in place), performance (are there good outcomes), or compliance (are commitments observed).

Since a Code signatory has committed to implementing a number of principles within its business, this commitment can be held to account in much the same way as an environment report detailing emissions data. The key to verification is the role of a third party in providing an independent perspective on an organisation's actions. Verification does not equate to accountability, so can only contribute towards it if seen to be a credible process.

Over time, the process of verification has become almost synonymous with auditing, and in particular the conventional auditing of a formal quantitative account prepared by an organisation. A characteristic feature of these audits, centred on the ISO 14000 series, is that they are often not directly concerned with the quality of performance, but rather with the systems in place which can govern quality or measure performance. [7]

The Code's structure of key principles and supporting systems has presented an opportunity in this exercise to explore several concepts of verification. While there is a spectrum of verification approaches, two simplified styles are outlined here as they form the main focus of this report.

	<b>'Systems' Style</b>	<b>'Principles' Style</b>
<b>Verification focus</b>	Management systems, for ensuring or measuring performance, are in place	Values espoused are actually in use or creating the desired performance
<b>Key evidence</b>	Existing data: documents for final check, supported by interviews with relevant staff.	Creating data: interviews, surveys, and observation, as well as analysis of documents
<b>Outcome of audit</b>	Rating (eg 'Level 3') or statement (eg 'the report represents a fair view of performance')	Narrative exploring a complex system, linking critical indicators of performance or outcomes with the wider context
<b>Underlying assumptions</b>	Quantitative approach or outcome = objectivity	Qualitative approach or outcome = subjectivity
<b>Philosophy</b>	Rationalist	Constructivist
<b>The Code as ...</b>	Generically applicable to any operation	Contextual importance of Code principles

**Table 1 - Styles of Verification**

Systems verification is a key aspect of management due diligence, however it is not appropriate for all the responsibilities of a business. The current emphasis on systems needs to be shifted or supplemented with concepts which focus on values and performance. Opportunities for stakeholder dialogue and participation are needed. A participative external verification process was PDAP's original vision.

## SCOPE OF VERIFICATION

### Introduction

To address their commitment to public accountability, PDAP invited external parties to assess the Code's implementation at its five operations. As methodologies to evaluate a company's implementation of the Code were in an early stage of development, the exercise was treated as a research opportunity.

A trial at the Granny Smith mine in November 1998 was aimed at putting PDAP's original vision of stakeholder participation in verification into practice. A consultation and audit exercise was initiated to engage local and regional stakeholders and involve them in an assessment of the mine's conformance with the Code for Environmental Management. The Code appeared to be not core to the stakeholders interests, a not surprising result given that it was the first time on site for more than half the group.

PDAP's desire to include verification outcomes in their public reporting meant tighter timelines for the project. It was decided to conduct the verifications without direct stakeholder participation, instead engaging them in a meeting at each operation. A verification team and Advisory Group were then assembled, to perform and oversee the process.

A timeline for these developments can be found in Appendix 3 to this report.

### CSIRO Objectives

CSIRO undertook to research the verification process, with the following objectives:

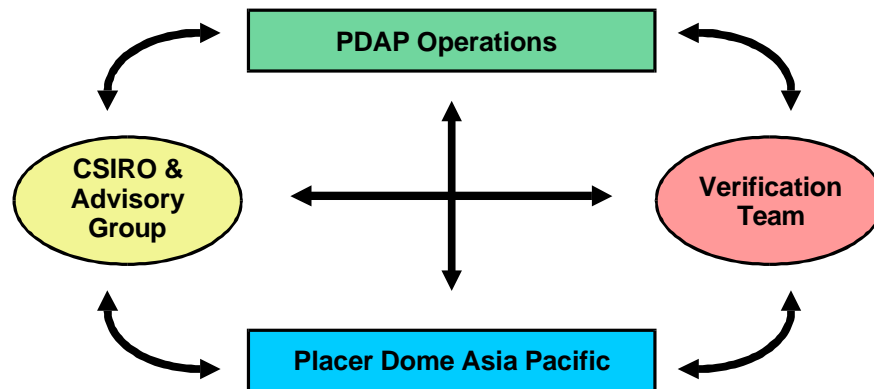
- Observe an external verification of the Code conducted by an external team to be appointed by PDAP;
- Co-ordinate an evaluation of the verification process and an assessment of its effectiveness through an Advisory Group;
- Develop a framework for future external verification across multiple operations, based on this case study and public domain information.

### The Advisory Group

An Advisory Group was formed for the research project to oversee the verification process and develop recommendations for future assessments. Current membership of the Advisory Group is:

Peter Durkin	Associate, Centre for Asia Pacific Studies	Victoria University of Technology
Dr Martha Macintyre	The Centre for the Study of Health and Society	The University of Melbourne
Steven Münchenberg	Chief Executive Officer Foundation (AMEEF)	Australian Minerals & Energy Environment
Michael Rae	Program Leader, Resource Conservation	World Wide Fund for Nature (WWF)
Jim Redden	Policy Director	Australian Council for Overseas Aid (ACFOA)
Dr Fiona Solomon	Research Fellow	CSIRO
Jim Thurlby	Principal Research Scientist	CSIRO

While the Advisory Group were to have input into the methodology used for Code verification, time constraints did not permit this. Fiona Solomon accompanied the verification team to each operation as an observer to provide the Advisory Group with a first-hand perspective of the verification process. The relationship between the various players in this project is illustrated in the figure below.



*Figure 2 - Relationships between parties*

## The Verification Team and Tasks

PricewaterhouseCoopers (PwC) were engaged by PDAP to complete a public verification statement of Code implementation. Libby Rankin and Marc Newson were PwC's externally accredited environmental auditors for the verifications of PDAP operations. Using a Protocol originally designed by the mining company RGC as a self-assessment tool, PwC reviewed and rated each of the 38 systems of the Code.

EMC International were included in the verification team to complete a separate report outlining the involvement of stakeholders in the process, their concerns, and their different opinions on Code performance and the verification process. From contact with stakeholders and with key staff identified by management, Janet Epps of EMCI evaluated the implementation of the nine Code principles for each operation.

PDAP asked that Janet pursue an additional role of assessing the Placer Dome Code of Business Conduct while at each operation. A list of ten questions formed the basis of an interview discussion with each operation's mine manager and individual interviews with a small number of staff.

In the context of this project, "the verification process" was thus three separate tasks performed at each operation:

- A 'Systems Review' by PwC
- A 'Principles Review' by Janet Epps
- A 'Code of Conduct Review' by Janet Epps

## The Operations

Three mines, Kidston, Osborne, and Porgera, were visited by the verification team during February and March 1999. Each mine has its own unique workplace culture, physical environment and social context and all are at different stages of mine life. Some of the characteristics of each mine are outlined in the table below.

	<b>Kidston</b>	<b>Osborne</b>	<b>Porgera JV</b>
<b>Region</b>	North Queensland	Western Queensland	PNG Highlands
<b>Climate</b>	Subtropical	Semi-arid	High rainfall
<b>Neighbouring communities</b>	Einasleigh (50km) and pastoralists	Pastoral properties and two mines	Porgera Station; local villages, some on the Special Mining Lease
<b>Production began</b>	March 1985	August 1995	September 1990
<b>Mine life remaining</b>	4 years	9 years	15 years
<b>No. employees 1998</b>	352	273	2291
<b>Mine</b>	Open pit gold	Underground copper	Open pit gold
<b>Recovery</b>	Carbon-in-Pulp	Flotation and gravity	Pressure oxidation/ Cyanide leach

**Table 2 - Summary of the three PDAP sites visited [8]**

## Process observed at each operation

**At Kidston and Osborne**, approximately two and a half days were spent at each site. Activities that took place included:

- Tours and inductions
- A PwC led group verification session with a number of key staff (mine manager and environmental personnel at Kidston, in addition a selection of employees at Osborne)
- Individual interviews by the PwC auditors with staff relevant to the area being verified (separately, to expedite the process)
- PwC verification of documents supplied by the mine manager, human resources or environmental staff for the Systems Review
- Interview with mine manager for the Principles Review
- Interviews conducted by Janet Epps with the mine manager and a sample of employees for the Code of Business Conduct review (with the assistance of Fiona Solomon, CSIRO)
- Stakeholder engagement sessions

At both sites the stakeholders were invited by the operation to attend on the basis of existing relationships with individuals or organisations. Both of these sites are remote, and the logistics of bringing people to site are significant. As a result, stakeholders present were those who were available and had the means to travel to site.

Kidston had four stakeholders present:

- three employees and
- one state government representative,
- (two others were invited but unable to attend on the day).

Osborne had eight stakeholders present:

- with four employees,
- two pastoralists,
- an NGO
- a tribal council representative.

**At Porgera**, the team spent three and a half days at the operation. PJV prepared a program to expedite the verification process and minimise excessive time involvement of key staff. Features of the PJV visit included:

- Site tours and inductions
- Introduction to management
- Short presentations on how PJV were implementing each principle by the nine managers who had been made 'champions' of a Code principle
- Dossier of three boxes of documents submitted to the verification team
- Individual interviews with the mine manager, human resources and environmental staff by PwC for the Systems Review

- Interview with mine manager for the Principles Review
- Interviews conducted by Janet Epps with the mine manager and a sample of employees for the Code of Business Conduct review (with the assistance of Fiona Solomon, CSIRO)
- Attendance at a regular Community Issues Committee (CIC) meeting of 32 community representatives
- A member of the Porgera Environmental Advisory Komiti (PEAK) sat in on the Code verification process as an external stakeholder
- Another external auditor conducted a concurrent ISO14001 gap analysis from the same dossier of documents.

## Code Verification Process

PwC's and EMC International's task was to provide a reliable, comparable evaluation of the extent of Code implementation across these local variations. Each PDAP operation had used the RGC protocol to complete self-assessments in 1998 of their performance against the Code. PwC had copies of these assessments but did not draw on them for the verification. Statements of the methodologies used have been written by Janet Epps and PwC below.

### Code Principles Review, by Janet Epps

The AMI Code Principles Review procedure adopted for Kidston, Osborne and Porgera Mines by Janet Epps (EMCI) was an experimental approach to develop a methodology appropriate to the likely interests and capabilities of stakeholders who may subsequently conduct these Code reviews. The emphasis was on the social aspects of Code implementation, however, as environmental aspects are often of the greatest concern to stakeholders, all Principles in this Code for Environmental Management may become areas of concern to communities at different times and in particular circumstances. The Code Principles Review was undertaken in parallel with, but as a different approach to, the systems-based Code Review undertaken by PwC.

An understanding of the individual site's responses to and performance against the Code Principles was gained through presentations by senior management, interviews, discussions, site visits, documentation review, and discussions with neighbours and other stakeholders. Issues of concern to the community, as identified by stakeholders involved in the Review process or previously raised with site management, and any other key issues identified by the site management were a particular focus of discussion.

To evaluate several of the Code Principles (eg. Sustainable Development, Integrated Environmental Management), it was necessary to develop an understanding of the relationship between key drivers of performance at the site, relevant policies such as the Placer Dome Sustainability Policy, implementation mechanisms and frameworks, and, critically, ultimate

performance with respect to the AMI Code Principles. Extent of corporate commitment to the concepts and programs embodied in the Code are reflected in this structure and its associated relationships.

The Code Principles Review was conducted on a qualitative assessment basis only and thus it was a subjective assessment. It focused on corporate understanding of, commitment to, and application of programs to ensure acceptable performance against the Principles. In some instances programs were relatively recent initiatives with limited output, however these were seen to represent acceptable corporate understanding of and commitment to the relevant Principle involved. In this context, the format has involved a narrative explanation of each significant issue, corporate initiatives to address the issue, performance in issue management, expectations and forecasts associated with management of the issue and involvement of stakeholders (see Appendix 4).

A narrative-format review of the Principles, based on a qualitative assessment methodology, will be much more difficult to use for site-comparison purposes than a system-based approach. It should not, however, present a difficulty for individual sites comparing progress or "continual improvement" from year to year. Indeed, such an approach and reporting format makes provision for the myriad of qualifications and explanations that are generally required to reflect the reality of any such evaluation. This format/style and general approach has been widely endorsed by stakeholders and management alike as capturing the spirit and expectations of all parties concerned.

# Code Systems Review, by PriceWaterhouse Coopers

## Performance review process used by PricewaterhouseCoopers

PDAP requested that PricewaterhouseCoopers review the extent of Code implementation at selected PDAP sites. The required outcome of the performance review was to provide a reliable, comparable assessment between sites. To do this, PDAP requested that PricewaterhouseCoopers utilise the self assessment protocol originally developed by RGC and updated with PDAP leadership which builds on the 38 supporting systems and processes. This was considered a more objective approach to achieve the required outcome than relying on the nine Code principles alone.

In relying on the 38 supporting systems and processes, PricewaterhouseCoopers did not formally attempt to challenge the intent of the nine principles or the adequacy of the systems and processes to meet the stated principles. This was not within the scope of the performance review, however, several areas for improvement were identified during the review including:

- removing areas of duplication between the Code supporting systems and processes
- increasing the available guidance on the expected output from a performance review by accredited auditors
- guidance on whether the review should be against implementing the Code principles or the Code supporting systems and processes.

Based on the performance review procedures performed, a rating was determined for each of the Code principles as outlined below.

### Methodology

Placer Dome Asia Pacific (PDAP) requested that the extent of implementation of the Code by each

of these three sites was reviewed using the self assessment protocol originally developed by RGC Limited, and subsequently modified by PDAP, PwC and Ben Woodhouse. Discussion on the verification procedures generally is documented in Appendix 1.

### Assessment

Based on the review procedures performed, a percentage implementation was determined for each of the 38 supporting systems and principles for each of the following gradings:

0	No action
1	Action planned and documented
2	Systems/processes being implemented
3	Systems/processes are implemented
4	Integration into management decisions and business functions
5	Environmental excellence and leadership

These percentages were then aggregated into a single score for each of the nine principles. This scoring system permits each site to gain recognition for progress achieved in some areas, despite not having fully achieved the previous grade. As a result, the final rating for each supporting principle may suggest a greater level of implementation or integration than expected. However, this reflects and rewards the site's achievement towards environmental excellence and leadership despite not having systems fully implemented or integrated.

Results of the PwC performance review for the three PDAP sites can be found in Appendix 5.

## Process Evaluation

### Feedback from the operations

A workshop with the Advisory Group, verification team, and representatives from PDAP and its operations was held to focus on what had been learned from the verification experience. The operations complimented the quality of the auditors and their flexibility with what was an experimental process.

That three separate tasks were to be carried out was not well communicated to the operations in advance of arrival. As a result, the operations saw the 'Systems Review' by PwC as the primary activity taking place. Because of this, most of the operation's feedback centred on the 'Systems Review'. The two major issues raised by the operations about the PwC process were:

#### Focussing down to the level of the Code's systems:

- that a systems style audit went into too much **detail** and the verification process would be better focussed at the Code principles level;
- that it **duplicated** existing EMS systems audits conducted within PDAP;
- that it verged on **prescription**, without flexibility for different implementation of the Code's intent.

#### Concern about the outcomes of the verification process:

- that assigning numerical **scores** to environmental actions was cumbersome and time consuming and artificially reduced a complex situation to a simplistic number;
- that measuring **progress** (what has improved at an operation) was more important and feasible than rating absolutes (comparing scores across operations);
- that reports should provide **suggestions** for improvement as well as assessment of past initiatives.

Some of the broader issues raised by the operations included:

- The Code is not a driver for management practice at the operations;
- Time spent at each operation was probably inadequate although a comprehensive assessment is probably not achievable;
- Given it was an expensive exercise in time and money, the value added to the business was in question;
- The stakeholder meetings were the most useful part of the process as they brought out ideas for future directions.

#### Other models: Stewardship Councils

Independent certification of environmental and social performance has been successfully developed for the forestry and fishing sectors, with the establishment of the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC). Both have developed standards of environmental and social performance against which timber and fishing activities can be certified by independent auditors. The certification attests to the performance of the operator extracting the resource, and is the consumers' assurance that the product has come from a well managed source.

Overall, it was felt there was an opportunity to incorporate what had been learned so far into an improved process to be trialled at the remaining two operations. In the following sections, some of the key dimensions of the verification process are discussed.

## Expectations

Each operation presented their implementation of the Code to the verification team through a different focus. The first two operations saw the Code as implicitly fitting into their broader philosophies. At Porgera, by way of contrast, individual managers had been explicitly assigned responsibilities for Code implementation. The differences across the operations implied the following typology:

Site	Focus	Expressed as	Examples of implementation
Kidston	Issue	Closure	Progress on rehabilitation and community closure committee
Osborne	Culture	High Performance Culture	Emphasis on egalitarian workplace culture
Porgera	Systems	Sustainability Management System	Documented evidence of management systems

**Table 3 - How operations expressed their implementation of the Code**

While this is a simplification - each operation had its own issues, its own culture, and a set of management systems in place - it is useful to draw the distinction between how each operation framed its Code implementation. These differences lead to varying expectations for what the verification process should focus on and deliver. Kidston and Osborne had expected a more qualitative assessment of their Code implementation so were not expecting a Systems review.

The Porgera operation had benefited from the advice of Kidston and Osborne as 'first cabs off the rank'. Their expectations drew on the previous experiences at the other operations, so were better matched to how the process was being carried out. It is possible that the way each operation chose to express its implementation would have had some effect on the outcomes of the verification process.

### Verification methodologies

From an observer's point of view, the methodologies for the Systems Review (PwC), the Principles Review and the Code of Conduct Review (Janet Epps) were still crystallising during time spent at site. Both the Code of Conduct and the Principles Reviews would have benefited from **more rigorous informant selection** and data collection methodologies. However both of these reviews had to be conducted while on site, limiting the time available for data collection for each.

The verification protocol used for the Systems Review was originally designed by RGC to be used by operations as a self assessment tool. During the PDAP trial, the verification team found that areas of overlap among the 38 Code systems caused repetition in questions asked and documentation required for checking. Several revisions of the protocol were tested by PwC. These were used as preliminary data collection templates before feeding the information

#### Other models: Responsible Care

The chemical industry's *Responsible Care* program is according to UNEP surveys the largest and best implemented voluntary industry Code. [12] The Canadian Chemical Producers Association (CCPA) verification model appears to be a good model. There is a formal National Advisory Panel of public interest representatives who have overseen the implementation and development of Responsible Care in Canada. A key feature is the active participation of advocates and citizens in the verification team. The team interviews management, workers, neighbours, customers, carriers and others, as well as reviewing documentation, with a focus on both the systems and the *ethic* of Responsible Care. Three years after the first round of verification, the second round focuses much more on a company's performance against stakeholder expectations. [13]

However chemical industry operations often operate in or near urban areas where there is a large pool of external stakeholders, and therefore a greater chance of finding people who are informed and able to put in the time and effort into the consultation/audit process. *Responsible Care* is therefore able to rely more on involving external stakeholders as a critical element of its credibility than perhaps the Code is.

back into the original protocol. As it is meant to streamline the verification task, a **Systems Review protocol needs improvement** from its present form to work towards assisting the process.

There is often an unease about acknowledging subjectivity and a desire for certainty and objectivity which may not always be attainable. Language used by the auditors to describe the verification process spoke of “getting a feel” and “knowing inside” what a site may rate, implying inherently subjective assessments. In contrast, taking subjective judgments and **producing quantified verification results tends to promote illusions of objectivity**. The Advisory Group noted a tension between the methodology of the Systems Review (drawing on subjective assessments) and the presentation of quantified results (overt embrace of objectivity).

One of the major issues raised by the operation’s representatives was that **of duplication between existing systems audits and the Code systems review**. Clearly, integration of the Code systems review into the existing systems audits should be encouraged. To some extent, this is more an issue requiring a response for auditing firms rather than the company and it is reasonable to expect that auditors will start to include coverage of Code implementation as part of the overall service they offer to meet their clients’ needs.

The overwhelming feedback from the PDAP operations was that a process of **verifying management systems should not be the central methodology** for assessing compliance with the Code. Verification of systems in place checks whether “the engine is running” but doesn’t check whether “the car is heading in the right direction”. Emerging from the Code are larger questions, dealing with some of the more nebulous issues of what sustainable development and community partnership might mean for the industry.

Taking a step back, however, the operations argued that the Code was not an important driver for the way they conduct their business. As PDAP operates under a Sustainability Policy, the Code initiative falls under this wider umbrella. Given that one of the goals of the Code is to enhance the community credibility of the minerals industry, PDAP may achieve this goal through a focus on **externally verifying its efforts towards its Sustainability Policy**. A qualitative assessment of the more difficult, so-called “softer” issues of sustainable development may address the operations’ call for more constructive outcomes from the process.

## Data

Staff interviews and documents were used by PwC to cross check the evidence of Code systems implementation. Keeping details in the protocol workbook of the data sighted provided **a good record of how the assessments were reached**, and an audit trail that will be necessary for subsequent assessments.

One of the criticisms from the operations was that the Systems style audit went into too much **detail**. For PwC to sign off on their verification statement, a large amount of documentary evidence was required.

## Other models: BHP Common Ground

*Common Ground* is a BHP Petroleum environmental initiative in Australia which commenced in 1996. It aims to address community concerns about the oil and gas industry and to improve the company’s environmental performance.

A pilot project of the initiative included community representatives as full participants in the design and implementation of audit activities. During 1998, two environmental audits were undertaken with community participation. One of the community representatives was an academic and environmental consultant who represented the Conservation Council of Western Australia. Her reflections on the process were that:

- the small size and remoteness of the plant might not excite much concern among the community;
  - as the sole community representative she was still treated as a legitimate member of the audit team;
  - involvement in audits is an opportunity for the community to gain an understanding of operational routines, constraints and challenges;
  - it improves transparency if representatives are free to communicate their findings;
  - it is important that the purpose of these exercises be meaningful in the longer term.
- [14]

While in this case the community representative brought a great deal of independent environmental expertise to the audit, a systematic methodology enables a wider range of stakeholders to be meaningfully involved in a verification process.

### Other models: Greenhouse Challenge

The Australian Greenhouse Challenge Office (AGO) is currently developing a process for independent verification of the information submitted to them. A number of considerations have been identified, including:

- **Scope:** the scope of the verifier's responsibility must be made clear. In the face of limited time and resources, it is possible that only sub-sections of reports can be examined.
- **Verifiable information:** the AGO will rely on the self-assessments made by individual companies in their progress reports. An emphasis on quantifiable information will make it easier to assess the veracity of figures.
- **Evidence:** several types of evidence are usually considered necessary for effective verification. The AGO needs to define the types of evidence it will consider as appropriate.
- **Funding:** with available resources limited, a contribution from companies towards verification will have to be considered. [15]

Greater detail could bring more rigour to the process, so perhaps it was actually the emphasis on recording existing detail rather than exploring outcomes that was in question. If the operations were more interested in a more strategic focus, then these unmet expectations could contribute to a reaction against what was seen as 'too much detail'. If used to develop solutions, detail can help by recording the problems within their broader context.

A wider range of sources would shed more light on both the context of the operation and its performance from a number of perspectives. Greater thought should thus be given to **collecting the perspectives of external stakeholders**. Interviewing mine selected people on the mine site may produce data that is unlikely to be representative or credible. Time needs to be spent talking to people in their own environments. While this may increase the length of the verification process, interviews conducted offsite should free up the load on key staff time. Offsite interviews would also make the process more accessible to a whole range of external stakeholders.

### Verification outcomes

Scores as an outcome of the Systems Review arose from the **desire to be able to compare different operations** and communicate the relative position and progress of an operation to its stakeholders. There is thus a desire to compare over space (between sites) and over time (within each site). If score improvement is clearly linked to desired actions then they can work as an effective driver of change. However, the risk with scores is that they can be a passive result when substantive change, not just score improvement, is desired.

The calculation of the scores for the Systems Review, aggregated by sums of percentages, creates statistics of inherent uncertainty. Thus issues of rater bias, insufficient time spent on site and evolving verification methodology, **draw the real comparability of the scores into question**. Since the final score for a Code principle is calculated from a complicated series of judgments, a systematic path for improving implementation (and hence score) seems unclear.

The operations' representatives commented that "measuring progress was more important and feasible than rating absolutes". Given that this first audit was a baseline assessment, progress could in theory be measured by subsequent audits. However, it also needs to be understood that only **measuring progress will benefit those operations where the most progress has to be made**.

That is, those operations starting off with the lowest level of Code implementation will appear to be doing better (ie making more progress) than operations which already have a high level of implementation and therefore having only limited scope for further improvement. Moving the goal posts would stretch out the scope for improved environmental performance, but scoring against moving goal posts may bring false comparisons. For the numbers to appear progressive, a

### Emerging issues: Long term impacts

There appears to be a limitation with the verification process in that there is no process for identifying and measuring "invisible" environmental impacts, or impacts which may have a significant, cumulative environmental impact over a long period of time. These impacts may well be managed by the site, but there appears to be no assessment of whether they have been managed adequately. These are impacts that external stakeholders, such as neighbours, conservation groups, or traditional land owners may not be aware of, or appreciate their significance.

company's progress would need to be more rapid than the advance of the goal posts.

If scores are the desired outcome of a Code compliance verification, then the recent WWF scorecard for public environment reports may provide a good model. This approach has a tight scoring system which allocates a certain number of points for specific topics or requirements covered, and totals are achieved through weighted sums. However rating reports is a comparatively easier exercise, as reports are a fixed unit of analysis and static over time, leaving only rater bias to be managed. The WWF scorecard only rates report content and makes no claims to be rating performance, which appears ultimately to be the desired outcome of verification of Code implementation. [9] There is clearly a tradeoff here: **the greater the focus on outcomes and performance, the greater the need for judgment and subjectivity.**

Depending on how broad an assessment is required, a Code verification statement prepared by an external party could include some or all of the following:

- pass/fail assessments
- scores for specific examples of Code implementation
- implementation grades (eg 1-5 ) on the basis of judgement
- indications of performance, perhaps in the form of social or environmental indicators
- measures of 'satisfaction' of stakeholders
- a qualitative assessment in the form of a narrative
- case studies on how the principles are implemented
- pictorial matrices, graphs and photos to convey lots of information simply and quickly
- suggestions for improved implementation of the Code or for areas on which to focus

The **mix of metrics** selected will depend on the audience for verification and their information needs.

Ultimately, there appears to be a tension between what constitutes useful outcomes for an operation and for its external stakeholders. Different stakeholders will be looking for different outcomes. Local stakeholders may place more value on their relationship with staff than on an independent assessment, while regional or national groups such as NGOs may seek external verification of performance by a third party. Some groups may be looking for a comparable rating for different sites, others may be seeking an understanding of the issues that are being faced, still others want to be assured that important issues are being properly addressed, while operations in turn may be keen to learn how to move further along the path. This tension will remain unresolved until the purpose and audience for verification and their expectations are clarified.

## Auditors

The Code currently requires evaluation by accredited auditors who can be internal or external to the company. While some stakeholders have pushed for external auditing, BHP for example have concluded that outsourcing all environmental auditing would be uneconomic for their 50 operations in 20 countries. Their auditing will be conducted by formally trained internal staff. [10] The Placer Dome Group also has a decentralised organisation with 17 sites in 7 countries, so financial imperatives may limit the frequency of future external verification processes. However, an external verification process would have greater external credibility.

**Qualities of an external Code auditing team** may include a knowledge of the environmental and social dimensions of the minerals industry, relevant auditing experience, and experience in carrying out

### Emerging issues: Managing effects

Measuring the social and cultural effects of mining is no simple matter. Agreement on the nature and magnitude of changes is rare, because of the different perspectives of the various stakeholders. In addition, it is often impossible to separate the impacts of the mine from background shifts a community is experiencing. There is not a simple, unilinear relationship between a mine and its community. [16] A mine cannot be separated from the complex social system of which it is a part.

In the Code, principles like "community partnership" are based on the assumption that the mine can develop policy that can *control* social impact. The development of a mine will have a significant impact on an existing economy, and in some cases may introduce a wage economy for the first time. There will be structured upsides and also downsides to this transition. Where does the responsibility lie for assisting the community to deal with these shifts? What about mines that in the clear light of hindsight should never have been built, but are 'doing their best' to handle the impacts of their operation?

qualitative evaluations. The verification team for the PDAP process certainly had these. However, the limited involvement of government and the absence of independent, environmental specialists was seen to detract from the strength of this verification process. Other candidates for an auditing team could include State mine and environmental protection departments, local shire councils, NGOs, community members, regional universities and independent research organisations.

An external auditor can bring fresh eyes to a mine site and carry out a process that should be perceived to be more credible and transparent. However the notion of independent verification presents something of a paradox when the third party is paid by the auditee. The question thus arises as to **whether “paid verifications” do reassure the public**. It was suggested that the direct funding could be decoupled either through an agreed third party or through a tripartite government-NGO-industry arrangement as described in Appendix 6.

This issue is often raised in the context of environmental impact assessments, where most jurisdictions require the project proponent to pay for and manage the development of the environmental impact statement or similar report. It is often argued that such reports cannot be seen as fully credible when they are paid for by the proponent and that instead government should pay for the preparation of the report. A counter argument to this is that the proponent will have no sense of ownership of a report or its recommendations where it is not responsible for its preparation. A similar situation could arise if the Code implementation auditors are not employed by the company. The company may see the whole process as externally driven and of little use to it. Perhaps it is more valuable to examine why financial audits are perceived as credible, even though the audited company pays for them.

#### **Emerging issues: Responsibility**

The Code seeks to address an image problem and assure the community of the industry’s performance. However there also appears to be a responsibility for an organisation to be self-motivated and assure itself that it:

- Does no harm
- Acts as a good corporate citizen
- Its individuals act ethically
- Provides a net social and environmental benefits across values with which the community can identify.

### **Involving stakeholders**

For the stakeholders who were involved in meetings at Kidston and Osborne, a sense of confidence in the operation was expressed. Some felt that the external verification process was a novelty and hence in itself **an indication of the company’s credibility**. The stakeholder present at Porgera was more of an observer than a participant in the process, and expressed concern that the verification had been about management systems and not really about the environment at all.

A **‘representative’ stakeholder group for any of the sites was not achieved**, though the question of how to achieve such a group for a verification process remains unresolved. Stakeholders can define themselves and miss the net cast by auditors. The stakeholder group will also be dynamic, and as some issues are ‘resolved’ old stakeholders may drop out, while the ‘solution’ creates new issues and new people with claims.

Stakeholder participation in the verification process would provide valuable perspectives on what ought to be its focus. However there are a number of potential constraints:

- stakeholder groups may not exist in very remote areas or for uncontroversial sites
- the knowledge or capacity may not be adequate
- non-technical people may perceive themselves to have little to offer
- they may not be interested in participating
- they may not be available to participate

For most stakeholders, participation in a mine verification is unlikely to be a priority. Conservation groups are not sufficiently resourced at present to provide a person for every mine site’s verification procedure. However as the ultimate audience, **stakeholder involvement in verification is necessary** for its long term credibility.

**Wider perspectives on an operation need to be gained**, and broader social and environmental diagnostic information could be gained from regional conservation and social welfare groups. Contacting

some stakeholders such as government departments or NGOs offsite to provide supplementary evidence or confirmation could address problems that remote sites have in bringing people to the table.

Motivation to be involved may be high at a local level, but the enthusiasm would probably drop off as the stakeholder group is widened geographically or as verifications become more common. **A regional forum could be a more effective scale** through which to develop strategies in issues to do with mining and sustainability. Motivation is less of an issue in countries like Papua New Guinea, where having only “locals” in a stakeholder group can skew the idea of community relations towards financial interest.

### Value of verification

The operations’ representatives expressed **concern that the exercise was expensive** in terms of time and money without clear value being added to the business. In part, this may reflect a tendency for the operations to see the benefits of the exercise only in terms of their operation and its local stakeholders. Corporate head office may need to communicate the bigger picture regarding government attitudes and community perceptions, particularly among urban Australians.

However, if independent verification is too expensive, the risk is that it will become unviable. In a systems sense, the Code should not be seen as an “add-on”, but as a new element to be **integrated fully into existing systems**. Some of the costs of the Code implementation verification could be minimised by ensuring that auditing of Code systems is incorporated into existing systems audits and external consultation processes.

While demands on time could be reduced through an improved protocol, a move to a more qualitative assessment process, and a focus on other sources of data, it is difficult to see how the cost could be reduced significantly. Thought should therefore be given to how the verification process could **provide some return on its investment**. The benefits may lie in the long term rather than the short term. Short term value may be in the form of direct suggestions for improvement that could make a difference to ‘the bottom line’. However there may be important long term returns in the form of improved relationships and credibility with external stakeholders. If the value of verification is high, then its cost becomes less of an issue.

### Timing of verification

Implementation of the Code is required to be evaluated at least every three years. While some of the PDAP operations suggested it should be an annual review, there needs to be enough gap between verifications to implement and measure improvements. Too short a frequency could drive an operation’s response towards ‘management by audit’.

Consideration could be given to **conducting a full audit every three years**, with annual audits in between focussing only on those issues which are marked as priority areas by the full audits. The combined scheduling of audits at Porgera was an effective use of the operation’s time and did not appear to affect the process of Code verification. Where possible, regular systems audits could be **scheduled concurrently** to contain the time spent on verification and to share the knowledge gained from similar assessments.

### Emerging issues: The Code

The degree to which the Code is a driver will depend upon the degree to which a company needs to be driven. It will be less relevant as a driver to a company which already has a progressive culture (such as PDAP) because other systems are already in place. For progressive companies, the main strength of the Code can be that the verification can provide a reality check, with external stakeholders either confirming or challenging the company’s beliefs and assumptions.

Since the release of the Code with the environment as its key platform, some companies appear to have moved on to broader social and sustainability issues. Issues of government and its role, in the context of the withdrawal of services, are key industry issues which are not covered. Given that the Code is the centrepiece of the industry’s commitment to community concerns, there is remarkably little involvement by stakeholders in either implementation or verification. As the Code is to be reviewed this year, there is an opportunity for a focussed evaluation of what works and what doesn’t.

## Introduction

PDAP should be commended for the process it has put in place to develop a workable, credible system for the external verification of the Australian Minerals Industry Code for Environmental Management. There is however a major pitfall, not so much in the verification system trial, but with the Code itself. That pitfall is in equating Code implementation or compliance with environmental performance. The industry, and individual companies, should not assume that implementation of the Code equates with satisfactory environmental performance, nor that implementation of the Code is all that is needed to satisfy the community that companies, and the industry as a whole, is taking all reasonable steps to protect the environment.

Voluntary codes can contribute to industry's overall improved environmental performance, can shift the business culture, and can reduce company and regulatory costs. However codes cannot ensure global application or address more complex sustainable development challenges. Although some codes refer to sustainable development, none are able to tackle the long term social and environmental dimensions that require broader solutions. [4] The Advisory Group's broader interests lie not so much with the Code but seeing sustainable development principles being put into practice.

Accountability is an ethical imperative for the company to inform society of its actions. Verification is an avenue for strengthening the credibility of that account, and can be used to:

- Assess actual progress toward shared goals
- Provide satisfaction that companies are meeting primary social duties
- Provide evidence of genuine intent
- Provide an entry point or framework for dialogue at any time
- Provide an industry wide tool for communication with the public and regulators

The last point is addressed by the current verification process, while the others less so. It is important that verification not be carried out for its own sake, but for real advances in accountability and ultimately sustainability.

Based on the issues discussed in this report, the Advisory Group's Wish List appears above and some options for assessment of Code implementation and external verification follow.

### Verification wish list

#### 1. Involving Stakeholders:

The verification process must involve stakeholders as contributors and recipients. There are clear opportunities here for better stakeholder involvement, rather than a simple rounding up of the usual suspects. In particular, the process needs a greater involvement of government representatives and independent environmental and social/community development specialists.

#### 2. Focus on performance:

Independent external verification of actual environmental, social and economic performance should be emphasised. Code verification needs a greater focus on environmental performance as a *result* of Code implementation, instead of just implementation. Critical indicators of performance will need to be developed on a site or regional basis.

#### 3. Transparency:

The verification process must be transparent - understandable, accepted and trusted by stakeholders. Verification results, warts and all, should be publicly available.

#### 4. Independence:

Totally independent verification (ie verification team members selected and paid for independently of the company) is an ideal to be aimed for. In practice there needs to be compromises.

#### 5. Value adding:

Verification must be cost effective - the costs must be commensurate with the magnitude of both the operation and the issues involved. It should also add value, such as providing assurance to stakeholders or new ideas for improvements to the company.

## External verification options

An external verification process needs to be consistent and yet flexible for application under the range of different environmental, social and economic conditions. While the Code protocol may be valuable as a self-assessment tool or mechanism for companies who don't have another evaluation process, we believe that PDAP has moved beyond this stage.

As a first step, PDAP should canvass views within the corporate office, operations and stakeholders to:

- Resolve who is the audience and what their expectation and information needs are for external verification

Drawing on this understanding and as their next step, PDAP should decide whether to:

- Verify Code implementation
- Verify their Sustainability policy

### A. Verifying Code implementation

Since verification of Code implementation has been carried out at three operations, there may be value in completing the process at the remaining two.

While some of the flaws in the process are due to overlap within the Code itself, there is still room for improvement in the verification methodology.

Verification of management systems is important, however it appears to be already addressed within PDAP by existing audits. Duplication of these activities is not only redundant, but a drain on the time and resources of operations.

Verification of the Code could be with the existing methodology, for the 1999 process to be more comparable across sites, or with a revised methodology. For verification of the Code to ultimately be of value, the focus should be revised to performance.

### B. Verifying Sustainability Policy

The Code contains concepts that defy verification in the absence of greater clarity and a shared vision within the industry and its stakeholders. PDAP could move towards an external assessment of performance against its own Sustainability Policy.

The focus of verification would shift from management systems towards sustainability and complex social and physical systems. PDAP should develop performance targets and indicators for its policy in consultation with its stakeholders and use these as the focus of an external verification process.

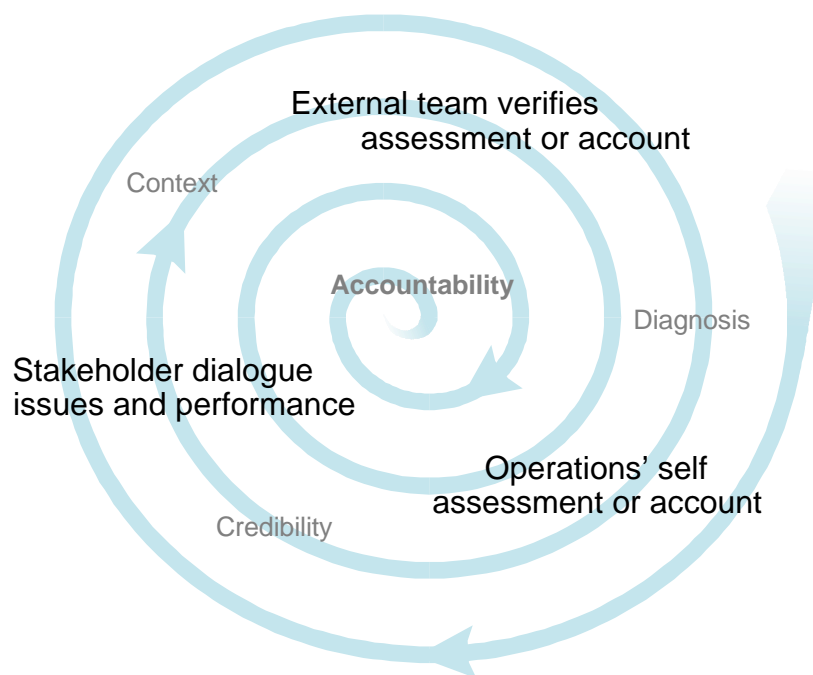
Depending on the methodology developed, verification of Code compliance could be an outcome of verification of the Sustainability policy.

As a current signatory to the Code, PDAP need to reflect on its ongoing requirements for Code verification.

## Verification Model

Verification involves three players - someone providing an account, an audience for that account, and a third party vouching for the account. For an account that is ongoing, such as commitment to the Code or a policy, the cycle of verification is dynamic. In most cases there is a regular dialogue between an operation and its stakeholders on their respective concerns. A formal verification process brings a third party to the table, and all three players will interact through their perceptions of values, issues and performance.

Accountability is an ongoing process rather than a state that is reached. The mining operations wish to add credibility to their dialogue with stakeholders. Some stakeholders need external verification of an operation's self account to be assured that it is credible. Operations seek additional value from the verification process in the form of a diagnosis of where they are and where they ought to go. A third party can provide both a verification to stakeholders and a diagnosis to an operation. In verifying an operations' account, an external team should draw on stakeholders' perceptions of issues and performance to provide a broader context. The following model captures the dynamic nature of accountability and the role of external verification.



**Figure 3 - Accountability dynamic**

A specific verification cycle should aim to structure and make transparent this dynamic for the visit to an operation and its stakeholders and in any subsequent report. The operation's 'account', whether it be the intent of a policy or a prior self-assessment, should be clarified in advance. The external verification team should then set down their method and scope to make the representivity of samples and data clear.

Whether PDAP decides to externally verify the Code or their Sustainability Policy, the Advisory Group recommends that an external verification team:

- Use a mix of *quantitative* and *qualitative* methodologies.
- Use a more *rigorous* informant selection process and spend time with stakeholders in their own environments.
- Verify the *performance* of operations in the *context* of stakeholder issues.
- Minimise demands on *business unit time* by scheduling, and to the degree possible, integrating Code verification with other audit processes.
- Give *commendations* and *suggestions* to the operation on opportunities to improve and share best practice within the industry.
- Convey the verification results in a *simple* form.

### **Involvement of stakeholders**

In an ideal world, an operation's relationships with stakeholders would date back to pre-mine development. Verification would then involve an operation's stakeholders as the key 'verifiers' of performance, whether they are actively involved in the process or oversee an external group.

However, the Advisory Group acknowledges the difficulties operations have of trying to engage people at later stages in the life of a mine, in bringing stakeholders to the table in remote areas, and in managing the myriad of stakeholder expectations in culturally complex areas. While involving stakeholders in the verification team would provide a more credible process, the issues of knowledge, capacity, availability and interest are recognised.

Issues that would benefit from some discussion for the next round of verification include:

- How can the indirectly affected become involved?
- Can a single day meeting of stakeholders play a key role in verification?
- What role do community panels play, perhaps in providing a middle ground between the verification snapshot and ongoing monitoring of performance?

As a first step, there is a need for a proactive approach to community dialogue and capacity building before involving stakeholders in the verification process. We recommend:

- Developing the verification methodology with participation of stakeholders in the process as a key objective.
- Developing a primer to introduce members of the community and other stakeholders to the Code, how it is assessed, and how it links with the PDAP Sustainability Policy and other initiatives.
- Creating long term plans to involve stakeholders in a local or regional dialogue on issues of sustainability performance and issues that they perceive happening as a result of mine operations either directly or indirectly affecting them.
- Investing in the capacity of groups to participate in long term partnerships and relationships.

### **The Advisory Group**

The members of the Advisory Group have appreciated PDAP's invitation to oversee this first round of external verification of the company's implementation of the Code.

As a revised external verification process is to be trialled at the Misima and Granny Smith operations later this year, there is an opportunity for further evaluation and development. It is therefore recommended that, if members are available:

- The Advisory Group be retained to oversee the second phase of external verification and provide continuity for comparative assessments of the changes from Phase 1.
- The Advisory Group have input into a revised methodology prior to the commencement of Phase 2

It is also recommended to only produce an interim report at this stage. Evaluations of the last two site visits could be combined with this report to provide input into a final CSIRO report. This would close the loop on the planned process.

*"[A] socially responsible company. Are there flaws?  
Of course. Welcome to planet Earth.." [11]*

## Glossary

Accountability	The duty to provide an account of those actions for which one is held responsible
AMEEF	Australian Minerals & Energy Environment Foundation
the Code	The Australian Minerals Industry Code for Environmental Management
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EMS	Environmental Management System
External party	External party who acts independently of the company
High Performance Culture	A workplace culture that emphasises the responsibilities and relationships of each employee towards each other
ISO14001 Gap analysis	An assessment of gaps in implementation of ISO14001 systems to evaluate how close a company is to seeking accreditation
NGOs	Non-governmental organisations such as social action and environmental groups
PDAP	Placer Dome Asia Pacific
PEAK	Porgera Environmental Advisory Komiti
PJV	Porgera Joint Venture
Principles review	The review of the company's performance at the level of the Code's 9 principles
the Protocol	A tool for companies to self-assess their performance against the Code, originally designed by RGC and slightly modified by PwC and PDAP for this trial
PwC	PricewaterhouseCoopers
Stakeholders	People who perceive themselves to be affected by or are concerned with a company's actions
Sustainability Management System	An umbrella management system that aims to integrate all other policies and systems towards sustainability
Systems review	The review of the company's performance at the level of the Code's 38 management systems
Verification	Demonstrating performance through external parties

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# Appendix 1 - Discussion on Verification (PriceWaterhouse Coopers)

## Critical assessment of the review process

### **1) Use of the self assessment protocol**

The self assessment tool used for this performance review is based on the 38 supporting systems and processes for the nine key principles of the Code, and contains gradings from 0 to 5 with suggested examples of implementation for each grading. This tool was specifically designed to be non-prescriptive and the examples provided are intended to be dynamic, and to improve as the level of understanding and commitment becomes clearer. The grade classifications (0-5) were designed to be the key assessment tool as opposed to the examples.

These non-prescriptive features can, however, result in some subjectivity in the allocation of percentages implemented by the sites as a result of:

- inconsistent interpretations of the protocol guidance being made by each of the sites
- there being variation in the method of use by the sites, for example, relying rigidly on those examples provided, or simply using them as guidance and allocating recognition for other initiatives similar to those provided
- non-comparable results between years if the basic self assessment protocol is changed.

For this exercise, comparability between sites was managed by using the same PricewaterhouseCoopers auditors at each site, and the auditors adopting consistent standards at each site.

The strength of this approach is in the use of the self assessment protocol, which encourages ownership across the site for each of the systems and processes, and is therefore good management practice. It also encourages the sites to justify their assessed performance by referencing objective evidence that can be independently audited when desired. Through this ownership the site may become more confident in:

- assessing their performance against the Code
- developing their own prescriptive examples of implementation, integration and leadership (which will undoubtedly change with time)
- including discussion of site performance against the Code in an account or report to stakeholders
- understanding the strengths and weaknesses of the Code
- relying less on external auditors to evaluate their performance. The external auditor can then be used to validate the self-assessment.

Each of the sites assessed approached the performance review process differently which provided a good opportunity to review the reliance placed on self assessment, site interviews and site documentation. It was felt that where a self assessment had not been thoroughly undertaken the external review was time intensive, requiring the external auditors to act in the same way as PDAP internal auditors might when performing the self-assessment where a large knowledge base is required before proceeding to check objective evidence.

### **2) Assessment or verification**

This assignment was specifically for the third party assessment of the extent of implementation of the Code at the selected sites, against a self-assessment protocol. PricewaterhouseCoopers would prefer not to use the term 'verification' to describe this exercise. The normal terms of a 'verification' methodology requires a company to provide an account or report to stakeholders of their performance which is independently verified using confirmation or substantiation procedures.

This was not the case for the PDAP exercise where, although a selection of verification principles were used, there was no account or report provided to the auditors or stakeholders by the sites assessed. Using an accountability framework, this account or report should be delivered to the key stakeholders who are required to endorse PDAP's 'community license to operate' or social contract. It would be inappropriate for PricewaterhouseCoopers to provide this account. Likewise, PricewaterhouseCoopers cannot provide a verification if no account or report has been provided. However, if PDAP were making the results of their self-assessment public (in the form of an account or report) then PricewaterhouseCoopers could provide a verification of their self-assessed performance.

### **3) Stakeholder engagement**

Due to the comprehensive scope of the Code's principles and supporting systems and processes, and the reflection of this in the self assessment tool, it is difficult for stakeholders to be involved as part of the third party assessment team without a thorough understanding of the Code. As the focus of the Code assessment was on the 38 supporting systems and processes, PricewaterhouseCoopers observed the process and capacity of the company to address stakeholder issues.

From this assessment, PricewaterhouseCoopers found that evaluating 'stakeholder values' related issues in a process audit mode was complicated by:

- stakeholders having a vested interest in a particular aspect of the organisation's performance which may prevent a specific stakeholder from assessing the site in a balanced or unbiased manner – they are therefore not independent
- difficulties for sites to obtain a representative sample of the stakeholders to participate in the dialogue due to remoteness, availability and timeliness
- difficulties in providing an atmosphere on site where all stakeholders will comfortably, or without alternative motives, express their concerns with the site.

To be effective as part of a Code audit, stakeholder engagement should be an ongoing exercise, the evidence from which is available for the third party assessment. The assessor is then in a position to review the evidence, and more importantly the implementation of outcomes from the stakeholder engagement process. Notwithstanding this, we feel the area of stakeholder participation requires further consideration and investigation to develop appropriate assessment methodologies.

### **4) EMS components of the Code**

For ease of implementing and integrating the Code, each site had approached Code implementation primarily in conjunction with the development and implementation of their environmental management system (EMS). From the site's approach and the results of the performance assessment, it appears that the key areas where the Code is more prescriptive than an EMS (based on ISO14001, for example), is in the areas of sustainable development, external communication, and rehabilitation and decommissioning. For the remaining areas there was some duplication of EMS audit requirements which could be streamlined for future Code assessments.

## **Appendix 2 - The Australian Minerals Industry Code for Environmental Management**

More than in any other way, the community judges the minerals industry by its environmental performance. Recognising the need to achieve environmental excellence and to be open and accountable to the community. Australia's minerals industry has developed a Code for Environmental Management. The Code has been strengthened by contributions from government and non-government organisations.

The Code is the centrepiece of a new commitment to respond to community concerns through consultation, demonstrated environmental performance, continual improvement and public reporting.

Adoption of the Code is voluntary and open to all minerals companies. Signatories will be required to demonstrate their commitment to environmental excellence and provide leadership to the minerals industry for the broad adoption of the Code. Irrespective of whether a company becomes a signatory, the Code provides a basis for improving environmental performance through progressive implementation of the Code's principles.

Effective environmental management within the minerals industry must take into account the physical, environmental, statutory, economic and social parameters relevant to each operation. Therefore, the Code provides a comprehensive framework for the development of effective systems and processes for each operation. It does not prescribe specific practices, standards or any particular local requirements as they cannot provide effective environmental management across diverse operations.

The Code does not set entry standards but requires signatories' commitment to continual improvement and public reporting of Code implementation and environmental performance. Signatories will progressively implement the Code's principles by putting in place systems and processes to achieve full implementation over time.

Signatories will apply the Code wherever they operate. The principles will guide signatories through each phase of mineral development, from exploration, through design and construction to mining, minerals processing, rehabilitation and decommissioning.

Signatories to the Code will:

- observe the policies, and respect the aspirations of State, Territory and sovereign governments relevant to mineral developments;
- facilitate community partnerships on environmental matters;
- report publicly on environmental performance and implementation of the Code.

The industry recognises that community, government and industry needs and expectations will change over time. The Code will continue to evolve with ongoing input from all stakeholders.

### **STATEMENT OF PRINCIPLES**

Signatories to the Code are committed to excellence in environmental management through:

#### **Sustainable Development**

Managing activities in a manner consistent with the principles of sustainable development such that economic, environmental and social considerations are integrated into decision making and management.

#### **Environmentally Responsible Culture**

Developing an environmentally responsible culture by demonstrating management commitment, implementing management systems, and providing the time and resources to educate and train employees and contractors.

## **Community Partnership**

Consulting the community on its concerns, aspirations and values regarding development and operational aspects of mineral projects, recognising that there are links between environmental, economic, social and cultural issues.

## **Risk Management**

Applying risk management techniques on a site-specific basis to achieve desirable environmental outcomes.

## **Integrated Environmental Management**

Recognising environmental management as a corporate priority and integrating environmental management into all operations from exploration, through design and construction to mining, minerals processing, rehabilitation and decommissioning.

## **Performance Targets**

Setting environmental performance targets not necessarily limited to legislation, licence and permit requirements.

## **Continual Improvement**

Implementing management strategies to meet current and anticipated performance standards and regularly reviewing objectives in the light of changing needs and expectations.

## **Rehabilitation and Decommissioning**

Ensuring decommissioned sites are rehabilitated and left in a safe and stable condition, after taking into account beneficial uses of the site and surrounding land.

## **Reporting**

Demonstrating commitment to the Code's principles by reporting the company's implementation of the Code and environmental performance to governments, the community and within the company.

## **SYSTEM AND PROCESSES**

The systems and processes relevant to each Principle are:

### **Sustainable Development**

Managing activities in a manner consistent with the principles of sustainable development such that economic, environmental and social considerations are integrated into decision making and management.

1. Support activities to improve knowledge of the short- and long-term availability and use of mineral resources.
2. Promote reuse and recycling of mineral products and by-products to maximise their utility to current and future generations.
3. Pursue cleaner production through research, technological innovation, operational efficiencies and waste minimisation.
4. Recognise the maintenance of ecological and cultural heritage values as an important consideration in sustainable development.

## **Environmentally Responsible Culture**

Developing an environmentally responsible culture by demonstrating management commitment, implementing management systems, and providing the time and resources to educate and train employees and contractors.

1. Develop, implement and communicate an environmental policy consistent with the Code.
2. Demonstrate management commitment through application of environmental management practices consistent with the Code.
3. Implement effective environmental education and training programs for all employees and contractors.
4. Ensure that employees and contractors are provided with necessary company policies, goals, procedures, guidelines and practices for environmental and heritage protection.
5. Require employees and site contractors to comply with company practices and procedures.
6. Facilitate community education about the minerals industry and its environmental management.

## **Community Partnership**

Consulting the community on its concerns, aspirations and values regarding development and operational aspects of mineral projects, recognising that there are links between environmental, economic, social and cultural issues.

1. Identify directly and indirectly affected stakeholders, and their concerns.
2. Foster openness and dialogue with employees and the community, promote cross-cultural awareness, and specifically address concerns about environmental and social impacts.
3. Provide to the community technical information about potential effects of operations, products, waste and rehabilitation practices.
4. Establish community consultation relevant to each stage of operations.

## **Risk Management**

Applying risk management techniques on a site-specific basis to achieve desirable environmental outcomes.

1. Utilise environmental baseline studies as the basis for risk management.
2. Evaluate the risks of alternative project concepts, weighing the positive and negative consequences of the outcomes and provide opportunities for stakeholder participation.
3. Implement management strategies to mitigate environmental impacts of the preferred development option.
4. Adopt a proactive and cautious approach to reasonably foreseeable environmental risks.
5. Develop and implement contingency plans to address incidents and abnormal operating and environmental conditions.

## **Integrated Environmental Management**

Recognising environmental management as a corporate priority and integrating environmental management into all operations from exploration, through design and construction to mining, minerals processing, rehabilitation and decommissioning.

1. Establish a management system which allocates management and employee responsibilities relevant to the organisation's activities and applicable legal requirements.
2. Address within an environmental management system:
  - applicable legal and regulatory requirements;
  - requirements under this Code and any other codes to which the company is a signatory;
  - company environmental policies, objectives and targets;
  - environmental management plans and procedures;
  - environmental monitoring procedures;
  - setting and testing of contingency and emergency response plans;
  - regular auditing of the environmental management system and environmental performance;

- reporting procedures.

3. Periodically review the environmental management system to ensure that it remains effective and relevant to the company's evolving needs and changing community values and expectations.

### **Performance Targets**

Setting environmental performance targets not necessarily limited to legislation, licence and permit requirements.

1. Identify legal and other requirements applicable to the environmental aspects of the organisation's activities, products or services.
2. Set internal performance targets and periodically assess achievements to reinforce policy commitments and to enable demonstration of continual improvement.
3. Ensure that legal requirements and internal performance targets are effectively communicated to the employees who are accountable for the relevant activities.

### **Continual Improvement**

Implementing management strategies to meet current and anticipated performance standards and regularly reviewing objectives in the light of changing needs and expectations.

1. Regularly review and update corporate policies, programs, and environmental performance to correct any deficiencies.
2. Assess and rank environmental issues in order to concentrate efforts in priority areas and where maximum gains are achievable.
3. Undertake, participate in, or support research on priority issues and facilitate transfer of information on technical developments, scientific understanding, consumer needs and community expectations.

### **Rehabilitation and Decommissioning**

Ensuring decommissioned sites are rehabilitated and left in a safe and stable condition, after taking into account beneficial uses of the site and surrounding land.

1. Incorporate rehabilitation and decommissioning options in the conceptual design of operations at the feasibility stage.
2. Develop clearly-defined rehabilitation plans, monitor and review rehabilitation performance and progressively refine such plans.
3. Determine and account for rehabilitation and decommissioning costs and periodically review their adequacy during the life of the operation.
4. Establish a program of progressive rehabilitation commensurate with the nature of the operation and the rate of disturbance.
5. Periodically review the rehabilitation and decommissioning strategies over the life of the operation to incorporate changing legislative requirements, public expectations and environmental and cultural heritage information.
6. Address issues and programs related to long-term responsibility for land management in the final decommissioning plan.

### **Reporting**

Demonstrating commitment to the Code's principles by reporting the company's implementation of the Code and environmental performance to governments, the community and within the company.

1. Implement regular reporting of environmental performance to all stakeholders, including the Board of Directors, shareholders, employees, authorities and the community.
2. Provide an annual public environmental report.
3. Reports should describe the company's processes for:
  - communicating environmental policy;
  - communicating environmental performance;
  - community consultation and responding to concerns;

- Code implementation.
4. Reports should also include, but not be limited to:
- organisation profile, environmental policies and objectives;
  - environmental management processes;
  - establishment of benchmarks against which continual improvement can be measured;
  - opportunities/progress in improvements;
  - prosecutions and associated significant environmental incidents;
  - performance in relation to regulatory requirements and internal targets;
  - environmental and heritage issues to be addressed and strategies to implement them.

## **CODE IMPLEMENTATION**

Companies committing to the Code will be listed on a register maintained by the Code Secretariat. Initially, the Secretariat will be provided by the Minerals Council of Australia.

### **Eligibility**

All mining and minerals processing companies are eligible to become Code signatories, provided they commit to its implementation. Membership of an industry association is not a prerequisite to becoming a signatory. Similarly, being a signatory is not a prerequisite for association membership. State Minerals Councils, Chambers of Mines and other minerals industry associations may associate with the Code.

Signatory companies will use all reasonable endeavours to have the Code Principles applied to operations in which they hold a non-controlling interest.

### **Registration**

Companies wishing to commit to the Code will advise the Code Secretariat by letter. Eligible companies will be added to the register which will be published and available for public inspection. Individual companies may choose to publicise their registration.

### **Performance Review**

Implementation of the Code will be evaluated by qualified, externally-accredited auditors from within the signatory company, or by accredited external auditors appointed by the company at least every three years.

### **Reporting**

Signatories to the Code will produce annual public environmental reports in accordance with the Code's Reporting Principle. The first report is to be prepared within two years of registration.

The reports are expected to demonstrate the company's commitment to, and implementation of the Code and describe its performance in relation to the key Principles.

Companies are to make their annual environmental reports available to the public through their corporate and regional offices. Copies of each report, for public review, are to be lodged with the Code secretariat and in major libraries in jurisdictions within which the company operates.

### **Code Review**

The Code will be a living document and will continue to be refined and developed. Consultation with stakeholders will continue. The Code will be formally reviewed in 1999, when signatories will be invited to recommit to the Code.

## **Appendix 3 - Project Timeline**

The recruitment of participants and preparations for the project developed over time. PDAP have held three stakeholder workshops on sustainability issues, welcoming a wide selection of NGOs and academics in the field of environmental and social impact of mining. At the latest workshop in August of 1997, participants were requested to indicate any interest in external verification issues. Those who did were invited to be involved in the project and core membership of the Advisory Group emerged. Additional people were targeted to bring more diverse experience to the group. The Australian Conservation Foundation (ACF) were invited to join, and while they declined to be a participating member due to other priorities, they agreed to keep a watching brief on the project through circulated reports.

A selected highlight of the group's examination of accountability and verification issues is outlined in the Project Timeline overleaf.

<b>Date/Place</b>	<b>Action</b>
<i>August 1998, Sydney</i> PDAP Stakeholder Workshop on Accountability and Verification	This meeting broadly agreed that PDAP needed to take socially aware principles into practice. Feedback form solicited interest in follow up involvement with verification.
<i>October 1998</i> PDAP initiates discussions with parties who had indicated interest.	A project examining verification began to evolve, along with the concept of an 'Advisory Group' who were willing to provide feedback and advice on verification
<i>October, 1998</i> Proposed Advisory Group formed.	Draft terms of reference circulated by CSIRO/PDAP. Additional Advisory Group membership suggested. The role and purpose of the verification was still evolving in PDAP thinking.
<i>28 October 1998, Melbourne</i> First meeting of Advisory Group, PWC, PDAP. Approach to the verification discussed.	Concerns and limitations of methodology raised by externals and CSIRO. No change, except to reiterate role of CSIRO to assess and monitor these issues. Consensus to proceed broadly as proposed by PDAP/PWC on basis that it was an untried process for all parties, and not an academic research project.
<i>31 October 1998, Melbourne</i> Weekend meeting of Advisory Group	Discussion of issues for monitoring by CSIRO, to work through in more detail what could be attuned to as part of mine observations.
<i>9-13 November, 1998</i> 'Trial run' mine visit to Granny Smith mine	Fiona Solomon and Janet Epps participate in a stakeholder engagement session at Granny Smith mine, where assessment of Code compliance was raised with stakeholders for the first time. Stakeholders showed a lack of interest in the Code as it was the first time on site for many. It was concluded that an assessment of Code conformance by stakeholders would be of value, since stakeholders are the key audience for independent verification. However, to achieve this stakeholders would need basic information in advance about the Code, a longer-term relationship with the site and its key staff, and the confidence/capacity to adjudicate on issues of environmental performance and systems.
<i>20 November 1998, Melbourne</i> Advisory Group meeting with PDAP and phone hook up with verification team	Continued issues with methodology raised concerning the focus on quantification, at the expense of exploring the underlying causes behind barriers to implementing environmental and social objectives. Unresolved tension between pragmatic company objectives and external concerns. However a general willingness to try it and see.
<i>11 December, 1998, Melbourne</i> Second Advisory Group meeting	A process from stakeholder engagement through to reporting and feedback to stakeholders was proposed. Issues of stakeholder selection and 'signoff' were also discussed.
<i>15-19 February, 1999</i> Kidston and Osborne site visits	Draft CSIRO site reports prepared and distributed.
<i>1 March, 1999, Melbourne</i> Post visit Advisory Group meeting	Main question of the meeting was whether to maintain process as it was for remaining three sites or revise. List of issues re current approach including stakeholder representatives, quantified results, and a prescriptive assessment was raised.
<i>8-11 March, 1999</i> Porgera site visit	Draft CSIRO site report prepared.
<i>15-16 April 1999, Cairns</i> Project review meeting	Meeting to gather feedback on the process to date with representatives from PDAP corporate and operations, advisory group, verification team and consultants.

**Table 4 - Project Timeline**

## Appendix 4 - Code Principles Review (Janet Epps)

The trial PDAP AMI Code Review involved Kidston, Osborne and Porgera Mines. A brief summary of the findings of each of these three Reviews is as follows:

**Kidston Gold Mine:** A sincere effort has been made by KGM in implementing the intent of the Code Principles, verified by the stakeholders' discussion. The intent of the Code and its component principles has been acknowledged by KGM although the Company has not made a particular feature of the Code in its day-to-day activity. The driver has instead been KGM's over-arching Sustainability Policy and its inherent concept of integrating environmental and social considerations throughout all areas of the business.

The Kidston Minesite is quite remote with few neighbours and positioned in a non-sensitive location. It is in a late stage of development and is focusing most of its efforts on its imminent decommissioning. The social issues associated with closure are now priority issues to be addressed by KGM.

**Osborne Mine** has demonstrated a high degree of compliance with both the intent and the detail of the AMI Code Principles in all areas, particularly in terms of its responsiveness to the concerns and interests of both internal and external stakeholders.

The Code is not, in itself, a key driver of environmental performance at Osborne Mine, although staff readily attest to it being a driver for getting the stakeholder engagement process in place and also prompting moves for public reporting. The overarching Sustainability Policy and tactical planning process, as well as continual improvement commitments, have been the key drivers that have driven performance.

Stakeholders have generally responded enthusiastically to the Mine's program of stakeholder engagement, believing it to be critical in today's business environment. They have not, however, demonstrated enthusiasm to be part of the Code audit team, although the environmental group and tribal council representatives expressed interest in observing the process and being able to access results. Demonstration of what is happening around the site and having the opportunity to talk with well informed staff in an atmosphere of openness and candour, apparently has greater appeal for most stakeholders.

**Porgera Mine:** The PJV has clearly demonstrated implementation of the Principles of the Code. The particular circumstances at Porgera Mine, however, including the difficulties the operation faces with respect to location and cultural context, are responsible for the considerable contrast in many of the operation's key characteristics with other PDAP sites. This great degree of variation highlights the importance of assessing compliance of the Code Principles against individual circumstances. It is apparent that the Code itself is not a key driver of PJV's environmental performance, as is also the case at other PDAP sites, but rather the PJV *Sustainability* policy.

The PJV has sought to optimise its response to the key sustainability commitment areas of human resources, environment and community in its own particular way and in the context of its own set of values and priorities. A concerted attempt has been made to work with the community towards the realisation of a long-term vision for the valley, focused on the development of the new town of Paiam. Several of the cornerstones to this vision were laid down in the original agreements of sale and the recently agreed FIFO Agreement makes a serious attempt to put the vision into place.

Successful development of a new regional centre at Porgera will be very dependent on the community's development of educational and vocational skills. The PJV's education and training programs for both their Porgeran workforce and local community have already achieved substantial improvement, visibly translating the value of in-situ (mineral) resource capital into human and infrastructure forms of capital. Such developments are, however, still very fragile and will require considerable ongoing support, as is recognised by the PJV. Despite the very real complexity and difficulties involved, failure to realise community expectations in the reality of the completed town, probably comprises the greatest ultimate risk to the long-term success of the operation and additionally, compliance with several Principles of the Code.

With regard to environmental issues, the people of the Porgera valley and the communities downstream of the Porgera Mine, are keen to see that the mine development does not unduly compromise environmental integrity, particularly for the long-term. Health concerns as a result of mine-induced pollution, alternative provision of resources (food, shelter and water) where previously available resources have been lost as a

result of mining, and rehabilitation of mine-disturbed areas to an acceptable standard will continue to be closely scrutinised. The region's cultural tradition of systematically exacting compensation for perceived performance breaches ensures that the local community will remain an effective watchdog of environmental performance, hence PEAK's role in monitoring these issues will continue to have an important place in managing this risk area. Public acceptability of riverine disposal of mine waste is an ever-increasing issue and consequently remains one of the PJV's biggest environmental/social risk areas.

Compliance with the Principles of the Code against this particular cultural and physical context is clearly evident, however actual performance (which is not specifically addressed by Code Principles) will be the key determinant in the PJV retaining its long-term *Licence to Operate*. The key driver in generating this outcome is most likely to be the Company's policy of commitment to becoming *The Company of Choice*.

## Appendix 5 - Code Systems Review (PriceWaterhouse Coopers)

### Executive summary of assessment results

A brief summary of key points supporting the assessment results follows for each site. Statements in italics refer to specific principles defined in the Code.

#### Osborne

There is good development and integration of an *environmentally responsible culture* at Osborne. This has been achieved through the development of a site specific policy; the development of environmental management as an integral part of the mine's activities by integrating with the business planning process; and the business unit structure and associated allocation of responsibility. Specific components of the Environmental Management System are currently under development and have yet to be formally implemented. This includes finalising the evaluation of significant environmental impacts and aspects; developing formal management strategies to address the significant environmental aspects; and, where necessary, integrating management strategies into standard operating procedures. A practical, business approach drives Osborne's achievements towards *sustainable development* and cleaner production.

Formal *reporting*, with the exception of regulatory reporting requirements, has been predominantly driven by corporate reporting initiatives, however, Osborne does prepare and distribute site specific monthly management reports to selected stakeholders. Formalised Board reporting and regulatory reporting addressing environmental issues occurs regularly.

The on-site stakeholder process indicated that good communication exists with those directly affected stakeholders represented in the assessment process. On-going informal and formal communication occurs with employees, directly affected local stakeholders, and regional stakeholder groups. The planned community advisory group should assist in further improving Osborne's understanding of directly affected stakeholders, and will also provide the opportunity for input into the existing *rehabilitation and decommissioning* plans by stakeholders. Osborne's commitment to environmental improvement has resulted in the government security bond being substantially reduced.

#### Kidston

There is a clear understanding and commitment towards *sustainable development* at Kidston which is driven by the Mine General Manager. The *environmentally responsible culture* has been developed by integrating and increasing awareness of environmental responsibilities through the strategic business planning process and task allocations across the business. This is supported by the environment committee and senior management meetings, employee training and ongoing informal consultation with employees through newsletters, etc. At the time of the review, Kidston was finalising site policies which have been integrated into the strategic business plan with senior management support. Operational procedures incorporating environmental responsibilities were also being developed. There was no formal integration of legal requirements in the business plan and task allocations, or internal auditing of the management system.

Closure is becoming a key issue for the site and directly affected stakeholders, and this is driving the majority of the consultation processes. Directly affected stakeholders, their concerns and information needs have been identified and procedures established to address the majority of these through the strategic business plan. This includes the stakeholder consultation group for closure and the water infrastructure taskforce. An employee aspect and impacts workshop was also convened to assist in identifying their concerns.

A combination of technical *risk management* techniques and assessment of perceived employee concerns is used to identify risks at Kidston. There is a process of regularly reviewing the corporate policies, the strategic business plan and actual performance against the plan including the results of the risk assessment reviews and changing operational procedures.

Formal *reporting*, with the exception of regulatory reporting requirements, has been predominantly driven

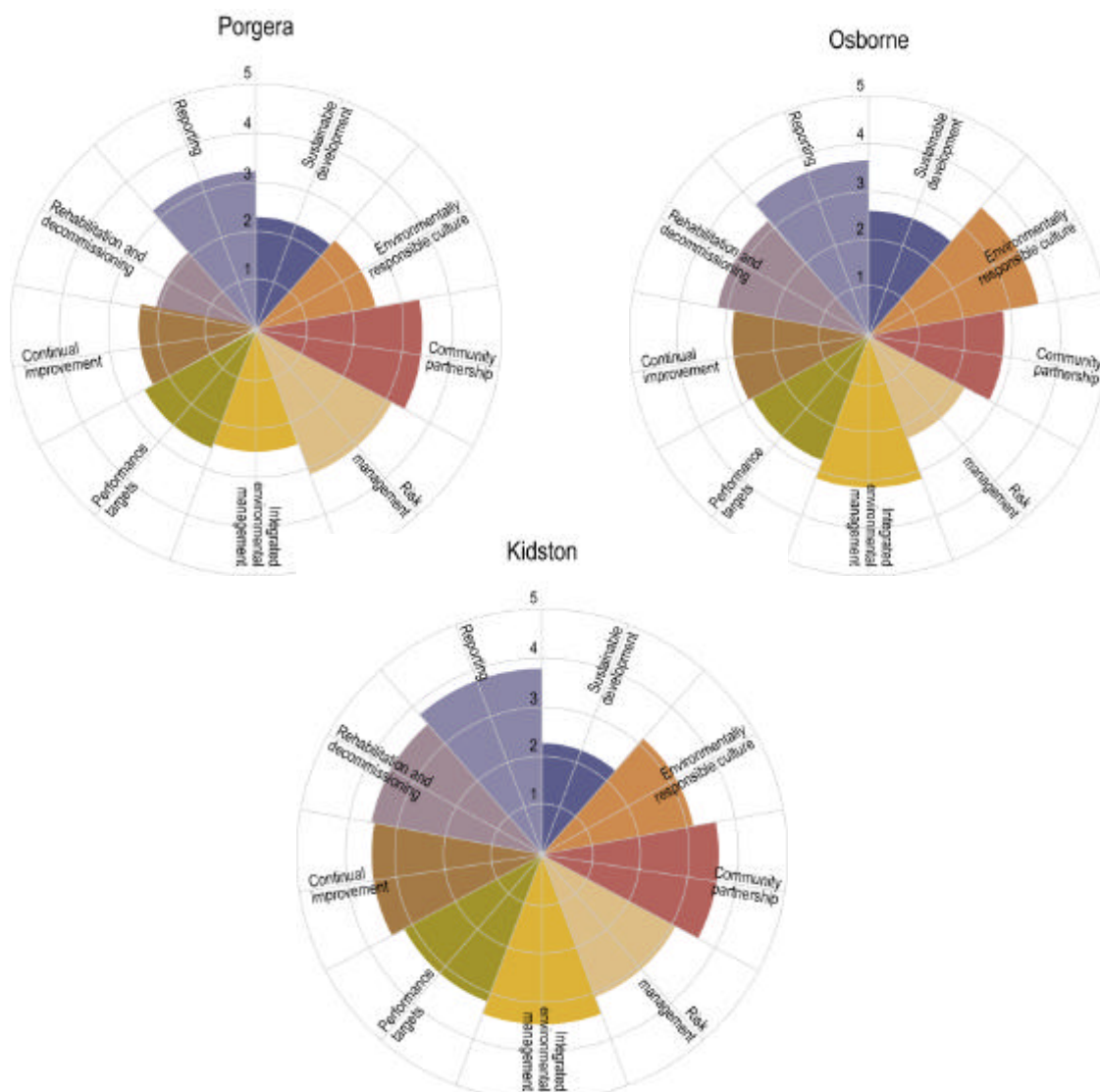
by corporate reporting initiatives

## Porgera

There is a strong awareness of the cultural and heritage values associated with the development at Porgera. PJV clearly recognise the importance of managing stakeholder issues in striving to become earth's gold leader and have established mechanisms for encouraging openness and dialogue with directly and indirectly affected stakeholders including the Porgera Environmental Advisory Komiti (PEAK), the Community Issues Committee (CIC) meetings, and distribution of annual and monthly reports.

The *risk management* and assessment procedures support the sites commitment to identify and deal with environmental and social issues relevant to the challenging surroundings of PJV. In the absence of extensive legal requirements, discharge limits have been established through a proactive process based on internal and external expertise. Research and baseline studies are performed to establish potential risks, and ongoing community consultation occurs to identify stakeholder concerns. These issues are incorporated into the strategic business planning process on an informal basis which has resulted in the development of Issue Management Plans for key risk areas.

A sustainability management system is being developed and integrated with the strategic planning process, but at the time of the review, did not formally integrate environmental responsibilities and appropriate controls into standard operating procedures to cover all aspects of operation; undertake internal audits/ reviews to confirm the level of policy implementation or compliance with environmental practices; nor establish a process for reviewing the effectiveness of environmental training.



## Appendix 6 - Tripartite Independent Monitoring Committee

A potential avenue for structuring an independent monitoring process is to adapt a Tripartite Model. Industry Training Councils in Australia exemplify the industrial relations practice of bringing together sectional interest in an industry with an independent chair. Applied to the operations of one mining company the model could be applied as follows.

The monitoring committee would oversee all of PDAP's operations in terms of their environmental, social and community impact. An independent chairperson would be appointed: an academic or eminent person who has excellent facilitation skills and who has no interest in the company. The chair would require a secretary who could be a Placer employee. A PDAP representative would also sit on the committee for advice and support.

The committee would represent three groups (with say 3 representatives from each grouping) consisting of:

- Community representatives eg local Aboriginal/PNG/farming representatives;
- NGO representatives eg an environmental NGO, an aid/development agency, a PNG NGO if possible;
- Academic or government experts eg in social and environmental sustainable development and knowledge of mining.

Ideally one or two of the representatives on the current PDAP advisory committee could continue on so as to maintain the background and knowledge of how the process has developed.

The task of the committee would be:

- Meet with PDAP and reach agreement on the performance outcomes on which the monitoring and assessment would be based, with benchmarks well above that of the existing MCA Code.
- Employ consultants to carry out the assessments and monitoring of sites based on an agreed process as established by the committee.
- Produce an independent public report annually that evaluates the company's performance.

Funding would be needed for committee sitting fees, travel and the consultants. Ideally the industry would have established a Blind Trust that may also attract government funding for the purposes of independent monitoring. In lieu of this, PDAP could establish a Blind Trust controlled by the monitoring committee. The details of this will need to be worked out carefully so that the monitoring committee can be truly independent and produce a report that if necessary can be critical of the company.

## Appendix 7 - Placer Dome's Sustainability Policy

Placer Dome is committed to being a responsible member of the global community and to implementing a policy of mining and sustainability. We will lead the mining industry to higher standards of performance and earn support for our business around the world.

We believe that sustainability expresses the core values of our employees. Sustainability requires profitable mines. It is an essential component in acquiring reserves, developing projects and managing risks.

For Placer Dome, sustainability means the exploration, design, construction, operation and closure of mines in a manner that respects and responds to the social, environmental and economic needs of present generations and anticipates those of future generations in the communities and countries where we work. We are committed to demonstrating that through this policy we can contribute to long-term improvements in quality of life while acting as stewards for the environment. To achieve sustainability, Placer Dome will:

### **Corporate Commitment**

Establish an effective management system based on ethical conduct and a commitment to continuously improve performance; integrate sustainability as an essential element in the duties of all employees; and encourage the adoption of our sustainability principles by joint venture partners.

### **Public Responsibility**

Communicate with stakeholders and work towards consensus based on honest discussion and a mutual understanding of concerns and needs.

### **Social Progress**

Contribute to the quality of life of employees, local communities and host countries, while respecting their cultures, needs and priorities.

### **Environmental Stewardship**

Protect human health, reduce our impact on the ecosystem and return sites to a state compatible with a healthy environment.

### **Economic Benefits**

Integrate our activities with the economic development objectives of local communities and host countries in which we operate.

Our direction is clear. The task before us is challenging. It is urgent. We are committed to establishing performance measurements and credible verification of our contribution to sustainability. The implementation of our Sustainability Policy will require creativity and judgment of our employees at every project in all regions. Our progress will come from our efforts and from our partnerships with communities, governments, joint-venturers, non-governmental organizations and international institutions. We invite all those who share our vision of mining and sustainability to work with us in creating our common future.

### **Corporate Commitment**

Establish an effective management system based on ethical conduct and a commitment to continuously improve performance; integrate sustainability as an essential element in the duties of all employees; and encourage the adoption of our sustainability principles by joint venture partners.

- Provide training and resources to develop employees and build competencies related to environmental and social responsibilities.
- Adhere to high standards of ethics, transparency and fundamental freedoms in the conduct of our activities, in a manner that will demonstrate trust and respect.
- Take a long term and comprehensive perspective on the social, environmental and economic impact of our activities from exploration through mine closure.
- Review environmental, social and economic objectives and performance to identify and effect

improvements within the context of evolving legal requirements, technical innovations, scientific discoveries and stakeholder expectations.

- In all activities, comply with applicable laws and regulations providing for the protection of the environment, employees and the public.
- In instances where regulation is absent or inadequate, apply best management practices and corporate standards to achieve sustainability objectives.
- Limit negative impacts on livelihoods in local communities, and provide adjustment assistance as appropriate.
- Work actively with government, industry and stakeholders to improve public policy, laws and regulations in support of sustainability.
- Conduct or support research programs to expand knowledge on the impact of mining activities on the environment and the community.

### **Public Responsibility**

Communicate with stakeholders and work towards consensus based on honest discussion and a mutual understanding of concerns and needs:

- Provide for the effective involvement of communities in decisions which affect them, treat them as equals, respect their cultures, customs and values, and take into account their needs, concerns and aspirations in making our decisions.
- Consider as a stakeholder individuals, groups, communities or governments which may be directly affected by our activities, and provide them with information relevant to their concerns.
- Understand and respond to stakeholders' concerns about specific impacts or risks, our sustainability performance or mining industry practices.
- Establish credible monitoring and verification programs to measure impacts and to ensure compliance with legal requirements and with our sustainability policy, and communicate the results in an effective manner.

### **Social Progress**

Contribute to the quality of life of employees, local communities and host countries , while respecting their cultures, needs and priorities.

- Assess conditions in communities affected by our activities, identify issues of community concern, and establish objectives and strategies for their management.
- Recognize the importance to communities of high standards of health and education and through cooperative programs contribute to improvements in medical services and educational opportunities.
- Work in a collaborative manner with communities, governments and, where appropriate, international institutions and non-governmental organizations, to improve social conditions and governance in local communities.
- Recognize and respect the importance of the land, and traditional knowledge to local indigenous or aboriginal communities and be sensitive to their cultural distinctiveness.
- Collaborate with communities and governments to plan for mine closure and the sustainability of social improvements.

## **Environmental Stewardship**

Protect human health, reduce our impact on the ecosystem and return sites to a state compatible with a healthy environment.

- Regularly assess environmental conditions through all stages from exploration through mine closure, identify all issues of environmental concern, and establish objectives and strategies for their management.
- Identify and assess environmental risks before starting a new activity or project and implement risk management strategies to minimize the possibility and consequences of adverse impacts, including emergency preparedness plans.
- Design, develop and operate facilities in an environmentally sound manner, taking into account the safe and efficient use of energy and materials and the safe disposal of wastes and by-products, and opportunities for pollution prevention.
- Identify and integrate closure requirements in all stages of activity and ensure that adequate financial resources are available to meet reclamation and environmental control obligations.
- Undertake programs to mitigate the impact of our activities in response to global environmental concerns.

## **Economic Benefits**

Integrate our activities with the economic development objectives of local communities and host countries in which we operate.

- Encourage community economic expansion where it is sustainable beyond the life of the mine.
- Identify local and national economic development opportunities and infrastructure needs, and co-operate with governments and communities to integrate mining related economic activity into the local and national economies.
- Promote the participation of local communities and host country citizens in the employment generated by the mine.
- Provide education and training for people in local communities to improve opportunities for employment in mine related activities.
- Promote and use competitive local and national businesses to provide goods and services for mining activities, and promote economic diversification in local communities that will support sustainable business activity after closure.
- Recognize that revenues to governments contribute to sustainable development, and support a fair distribution of economic benefits from mining to local communities and the national economy.