Summary

• Who is INAP and what we are doing
• What is the GARD Guide
• Using the GARD Guide
• GARD Guide Example – Communication and Consultation
• INAP believes ARD Management is Improving
ARD Issues Recognized by INAP

- International Network for Acid Prevention (www.inap.com.au)
- Consortium of mining companies that “…exists to fill the need for an international body which mobilizes acid drainage information and experience.”
  - Networking and information-sharing
  - Technology transfer
  - Gap-driven research
- Recognized the need for global approach to ARD management
With Support from the Global Alliance
Global ARD Guide
(www.GARDGuide.com)

“An international guide for facilitating world-wide best practice in prediction, control, and mitigation of acid rock drainage.”

“The guide will become a reference document for all stakeholders involved in ARD and waste management issues.”
GARD Guide Characteristics

- Flexible to accommodate site-specific issues
- Founded on a risk-based approach
- Encourage reduction and control at the source
- A “how to” guide and not a regulatory tool or a design manual
- Based on proven, field-tested technologies
- Avoids duplication and builds on existing guidelines and compendia
- Web-based – navigate via links, linked to references, ease of up-dates
1. GARD Guide - INAP

2. ARD Process – Dr. Rens Verburg

3. Corporate, Regulatory and Community Framework
   – Mr. John Wates (Fraser Alexander, Jo’burg)

4. Defining the Problem – Characterization
   – Dr. Devin Castendyk (SUNY Oneonta)
   – Ms. Cheryl Ross (Golder, Redmond)

5. Prediction
   – Dr. Kirk Nordstrom (USGS Denver)
   – Dr. Rens Verburg

6. Prevention and Mitigation
   – Dr. Ward Wilson (UBC, Vancouver),
   – Dr. Ben Wickland (Golder, Vancouver)
7. Treatment
- Dr. Andre van Niekerk (Golder, Jo’burg)

8. Monitoring
- Dr. Peter Chapman (Golder, Vancouver), Ms. Cheryl Ross

9. Management and Performance Assessment
- Dr. Andrew Robertson (RGC), Dr. Dirk van Zyl (UBC)

10. Communication and Consultation
- Mrs. Tisha Greyling (Golder, Jo’burg)

11. ARD Management in the Future
- Keith Ferguson (Sustainability Engineering)
How to Get Value from the GARD Guide

• Prevent ARD rather than treat it
  • Minimize and characterize disturbed material
  • Plan and design for closure from the start
  • Integrate the GARD into operations
  • Update closure costs regularly

• Engage all stakeholders in the process – shared responsibility
GARD Guide Example
Communication and Consultation

• Engagement of Stakeholders needs to start early in mine life
• All Stakeholders have a role to play – shared responsibility
• Stakeholder engagement levels the playing field
• The ARD Management Plan identifies the issues and concerns and helps develop solutions
IAP2’s Public Participation Spectrum

**Inform**
- Public participation goal: To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.
- Promise to the public: We will keep you informed.
- Example techniques: Fact sheets, Web sites, Open houses.

**Consult**
- Public participation goal: To obtain public feedback on analysis, alternatives and/or decisions.
- Promise to the public: We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.
- Example techniques: Public comment, Focus groups, Surveys, Public meetings.

**Involve**
- Public participation goal: To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.
- Promise to the public: We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.
- Example techniques: Workshops, Deliberative polling.

**Collaborate**
- Public participation goal: To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.
- Promise to the public: We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.
- Example techniques: Citizen advisory Committees, Consensus-building, Participatory decision-making.

**Empower**
- Public participation goal: To place final decision-making in the hands of the public.
- Promise to the public: We will implement what you decide.
- Example techniques: Citizen juries, Ballots, Delegated decision.
Where Do We Go From Here

• INAP is focusing on capacity building in developing mining regions
• Enhancing capacity of all stakeholders
• What needs to be done?
• How should we proceed?
• With whom should we partner?
Conclusions

• ARD management is critical to the success and reputation of the mining industry
• Measurement and ongoing improvement of the ARD MP are necessary throughout the life of mine
• Successful implementation of an ARD MP relies on commitment from company management and the systematic use of ARD management tools including engaging all stakeholders
• ARD Management is improving due to the efforts of all stakeholders including the environmental community