“Risk” = the probability of an unfavorable outcome

“Risk Management” = minimizing the probability and severity of an unfavorable outcome at the lowest long-term cost

Risk Analysis – Considerations
- Type of project; client attitude
- Effect on reputation
- Risk vs. benefit
- Responsibility vs. authority

Decision to proceed with project – or not
Risk management a proactive process

Risk Identification
- Recognition of the professional’s capabilities
- Analysis of the proposed project
- Client’s financial capability
- Client’s experience
- Client’s representative – a “decision maker”?  
- Client’s performance expectations – realistic?

Risk Response
- Decision to go forward with project – considerations
- Professional’s current workload may encourage going forward
- If so, identify means of risk mitigation
Risk Mitigation – elements

- Close supervision of workers
- Increased training/education
- QC/QA programs
  - Addition of special skills
- Client and internal communications
- Billing/fee collection

Contracting

- Identification of risk before contract negotiation
- Define scope
- Identification of assumptions
- Identification of parties with authority
- Identification of contingencies
- Provisions for dispute resolution
- Allocation of risks

Contracting (cont.)

**Purposes of contract**
- Define project scope
- Establish relationships and clarify communications
- Allocate responsibilities and risks
- Confirm mutual understanding

Risk Transfer – Insurance

**Practical, ethical provision**

**Considerations**
- Coverage limits
- Deductible limits
- Analysis of risk exposure
- Coverage exclusions and conditions – the “fine print”

Practice Management

- Excellence of service
- Responsibility to clients and public
- In-house education
- Employee awareness
- QA/QC programs

Environmental Risk Management

- Risk to public and society
  - All principles of risk analysis, identification, response applicable to environmental risk management
  - Ethical and legal responsibility of the professional
- Responsibility of the professional in private practice
- Responsibility of the publicly employed professional
Environmental Risk Management

- Pre-construction evaluation and safety engineering
- Project monitoring
- Long term monitoring
- Emergency response

Conclusions

- Business decisions subject to social expectation and regulation
- Leadership and management must apply risk management provisions
- Professional’s ethical responsibility for environmental risk management is equal to concern for business risk management