Outbursts of Water from Abandoned Mines
Causes, Consequences, Remediation and Responsibility
Litija, Slovenia (March 2010)

Flood Risk
Consequences of Flooding
The impact of flooding upon local communities
Consequence of Flooding

1. Property Damage
2. Loss of Life, Illness & Injury
3. Economic Loss
Thousands of homes affected

First few inches of water caused up to 90% of damages sustained
- Floor coverings
- Soft furnishings
- Electrical wiring
- Internal walls

Some homes flooded previously, but renovated in same manner

Residents still in temporary accommodation up to 2 years after flood

Carlisle 2005
1. Property Damage
2. Loss of Life, Illness & Injury
3. Economic Loss
- Flooding occurred in winter in middle of night
- Telecommunications, power & emergency services were lost
- Families separated during evacuation & unable to get in contact
- Sewer failures led to contamination of floodwater
- Very rapid increase in water level
- Floodwaters were deep, fast flowing and full of debris
- Population primarily tourists & the elderly
Economic Loss

1. Property Damage
2. Loss of Life, Illness & Injury
3. Economic Loss
- Loss of water supply infrastructure early in flood
- No water supply to surrounding communities for over a week
- Closure of road & rail system due to flooding meant no means of delivery of emergency supplies
Case Studies – Flooding as a Result of Mining Failures
Buffalo Creek
US (1972)
Managing the risk to the community
Managing the Risk

- Warning System

- Effective Planning
  *How to respond in an emergency*

- Community Awareness
  *There is a risk!*

- Community Education
  *How to help yourself*

- Resilient Homes & Businesses
  *Minimise damage*
Mine Water Poses Danger of a Toxic Gusher

LEADVILLE, Colo. — In a snowswept trailer park, Emily Medina wakes each morning wondering whether she will be washed away by toxic water that local officials fear could burst from a decaying mine tunnel near her home.
Thank you for listening