

About the Fitzroy River system

- Largest river system on the east coast, draining to GBR lagoon
- Highly variable climate – the home of droughts and flooding rains, straddles the tropic of Capricorn
- Ephemeral streams, five large catchments, major flow about every ten years. Massive flood plains and delta

Land -use

- Pre-dominantly agriculture, 82% grazing, 6% crops, rich brigalow belt largely cleared
- Underlain by Bowen basin coal and coal seam gas reserves
- 40+ operating coal mines, thousands of gas wells, and associated infrastructure to ports
- Urban coastal development

January
2008

It rained.....

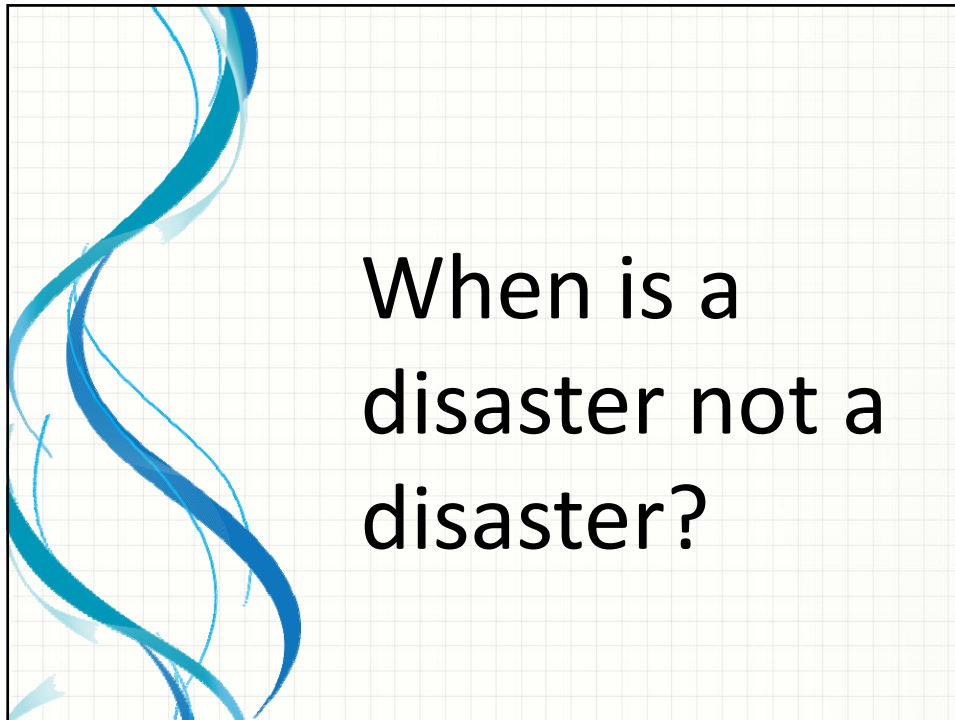
- 1 in 100yr rainfall event hits Central Highlands
- Nogoia River fills Fairbairn dam and it overflows for the first time in 17 years
- Emerald township is flooded, remains cut off for some time
- Downstream, Ensham coal mine's levee bank overtops and fills B, then C pit, drowning a drag line



- After human safety, the immediate priority was to get the mine operational again, as quickly as possible
- Returning the water to the river while the maximum flow occurred presented the greatest chance for minimising environmental harm.

- EPA authorised a Transitional Environmental Program (TEP) under the EP Act to discharge water back into the river
- As the flood water in the river receded, and water mixed with the pit material, additional water was purchased via temporary transfer from upstream Fairbairn to blend to continue to release with the limits of the TEP
- 138 000 megalitres in total was released





When.....

- No lives were lost
- None of the 3000 current jobs were lost
- Ensham maintained 70% productivity, and
- Future plans have been amended –no more open cut mining on the floodplain

But....

- By August 2008, the quality of water in the river supplying surrounding towns had substantially declined
- At it's worst, sodium 234mg/l
- Effects began to be noticed as far down as Rockhampton, including on the power station and hospital (eg. Dialysis machines), stock watering and aquatic ecosystems

- So, a flooded coal mine's discharged water affects the drinking water of several surrounding coal towns and the downstream coal-fired powerstation!

Huston, we have a problem!

Hart Review

- Health effect from the elevated sodium levels in drinking water supplied to Blackwater, Bluff and Tieri,
- The poor taste of drinking water supplied to Blackwater, Bluff and Tieri,
- Possible taste and health effects in Rockhampton's drinking water supply,
- Livestock refusing to drink water taken from the river,
- Disruption to Stanwell Power Station's operations due to higher salinity cooling water,
- Adverse effects on the aquatic biota, including fish, macroinvertebrates and turtles,
- The lack of information provided by authorities to the community,
- The EPA's processes in issuing a discharge licence to Ensham.

Response (long term)

- Technical Working group > Fitzroy Water Quality Advisory Committee
- Cumulative impact study > IQQM use
- 'Voluntary' EA amendments by all mines
- TEP process improved
- Environmental Values and Water Quality Objectives scheduled
- Increased communication / website
- Increased monitoring
- Fitzroy Partnership for River Health – 29 partners working towards report card

Reflections

- Hart found that the discharge from Ensham was warranted – thus the environmental management in a **crisis** was sound
- The **recovery** phase has been long, but many improvements to the policy and procedural framework have been made

Reflections

- **BUT**.....would those improvements have been made without the crisis?
- Is the existing policy framework robust enough for improvements to be made **before** community outrage and thus political intervention?
- Are there other examples where developments are being assessed individually where **cumulative impact** should be assessed? Coal Seam gas? Coastal development?
- Are we looking at the effects of previous land use change not yet fully realised (clearing) in the cumulative impact assessment?

Reflections

- Environmental crises affect the community deeply – oil spills, nuclear disasters, cyclones, floods, tankers hitting the reef, but none more so than the quality of the water they drink
- Once community lose confidence in the authorities, can it ever be restored?

Fears river water could turn into toxic cocktail

KATE Jones says she won't allow the quality of Rockhampton's drinking water to be compromised for the sake of mining profits.



Treed off by sick system



Water salty, but safe? Vote now

Salinity levels in Fitzroy double

Something in the water

Elly Steel refuses to drink Rockhampton water after she found what she believes is a residue of yellow sulphur and coal dust inside her filtered tap water. Despite the Department of Environment and Resource Management's reassurance no mines are currently discharging into the Fitzroy catchment, Mrs Steel said she believes the Ensham and Mt Morgan mines are behind the horrible smelling residue.



ROCKHAMPTON MP Robert Swarten has fired a volley of criticism at Queensland Resources Council chief executive Michael Roche who he has accused of wanting to put profits before health.

