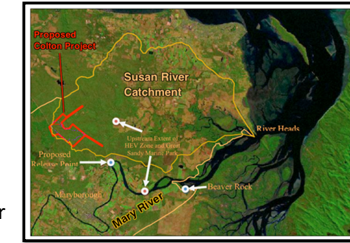




## Key Facts about the Colton Mine

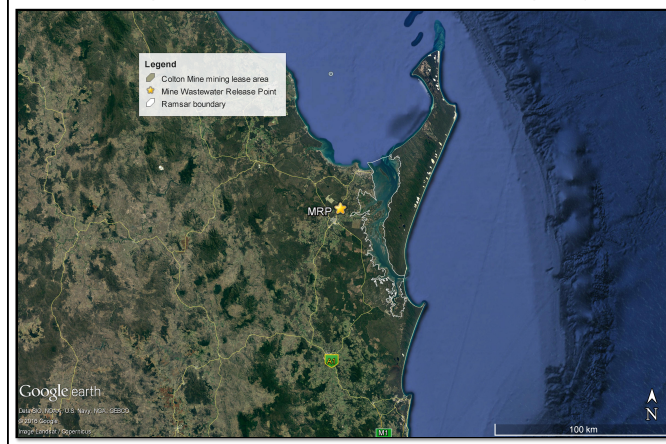
- First proposed in 2009
- Qld Gov approval in 2017
- 8km from Maryborough
- Owned by New Hope Coal
- 0.5 Mtpa of export coking coal (expansion possible)
- Affects both the Susan River and Mary River



Source: New Hope Coal

*"The Susan River catchment is notable for its intact connectivity between estuarine and freshwater systems which is important for diadromous fish migration." Queensland Government, 2011*

## Getting a sense of scale on the project



## What is so special about the Great Sandy Strait?

- Internationally listed Ramsar Site
- Migratory birds – at least 18 nationally listed threatened species and 30,000 individual birds
- Threatened Australian Humpback dolphin frequents the river mouth
- Six species of marine turtles including threatened Loggerheads and Greens
- Largest Dugong population on the East Coast south of Torres Strait
- Largest sea grass beds in Southern Qld
- Highly interconnected ecosystem



## What is so special about the Great Sandy Strait?

- Commercial fishing
  - 40 enterprises + prawns and scallop
  - over one million serves of fresh fish/yr
  - Clean green image
- Recreational fishing industry worth millions
- Gateway to World Heritage listed Fraser Island
- Part of the Great Sandy Biosphere



All of these values of the Great Sandy Strait depend on good water quality and good sediment quality

## Special visitor - Eastern Curlew (*Numenius madagascariensis*)

- Largest Migratory Bird
- Fly from Russia and North-Eastern China
- Critically endangered
- Priority bird for National Threatened Species Strategy
- Feed mainly on soldier crabs, sentinel crabs, ghost shrimps in the tidal mudflats of the Strait



53 - 60 cm in length  
weighs about 900 g

The Great Sandy Strait supports 15.8% of the global population and 21.4% of the Australian Population

## What are the issues with the mine?

- Regular discharge of **heavy metal contaminated untreated waste water** into the Mary River
  - Up to 5.8% of the daily flow
  - Due to Acid Mine Drainage it is acidic (low pH) and contains heavy metals
  - Releases to the river would increase levels of heavy metals above background levels
    - For cadmium, cobalt, manganese, selenium, nickel and zinc
  - In the Great Sandy Strait High Environmental Value waters the mine would cause increased levels of heavy metals above safe limits
    - Cobalt – **six times** the safe level
    - Cadmium – **nine times** the safe level
    - Manganese – **sixteen times** the safe level

Source:  
New Hope  
Coal

## What are the issues with the mine ?

- Risk of **uncontrolled discharge** of heavy metal contaminated untreated waste water into the Susan River
  - Dams storing the wastewater have been under designed
    - Now designed for a 1 in 20 year critical wet season and 1 in 10 year storm
    - Previously they were designed for a 1 in 100 year critical wet season and a 1 in 100 year storm
  - The wastewater with the high levels of 11 heavy metals could be released directly into the almost pristine Susan River catchment
- **Leaving a void** 111ha in area and up to 50m deep
- **Inadequate monitoring** required in the Environmental Authority granted by the Qld Government
  - No sediment monitoring
  - No monitoring of the Susan River
  - No ecological monitoring

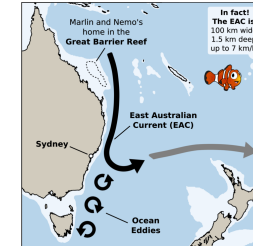
## Implications of elevated heavy metals levels have not been evaluated

- Behaviour of metals in an estuary is affected by salinity, pH, and mixing of the water column
- Metals can accumulate in the sediment and be absorbed by creatures in the sediment
- Given the right conditions they can rapidly release
- Chronic impacts
  - Accumulation in the foodweb (which includes humans!)
  - Change the habitat by coating river bed with layer of metal precipitation
- Acute impacts
  - If levels high enough they can be directly toxic to aquatic life



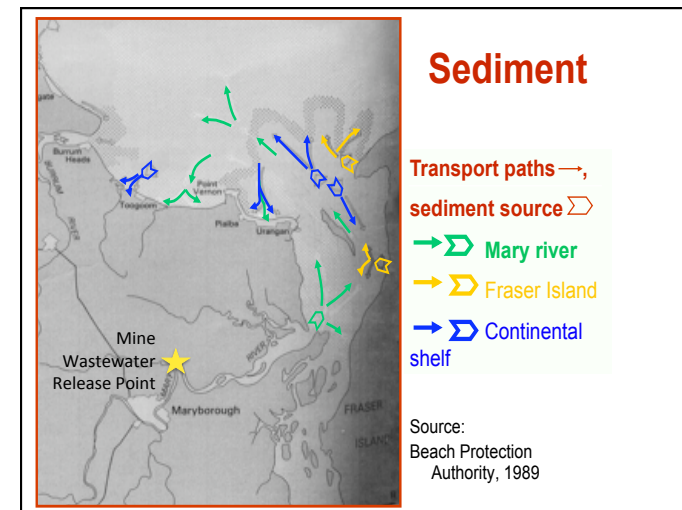
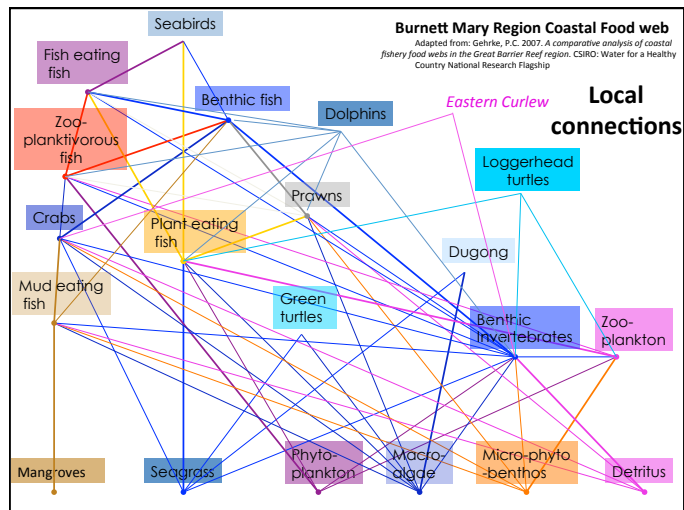
## Local, regional and global connections

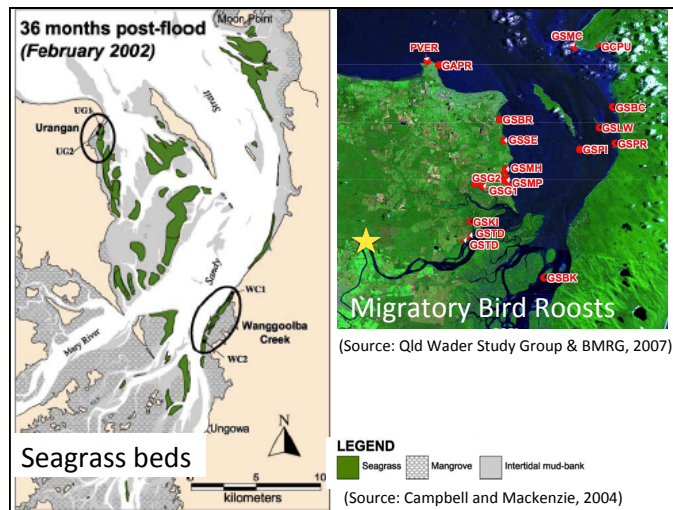
- Fish move between coral reefs and mangroves
- Links to Great Barrier Reef
- Manta rays feed off the continental shelf
- Humpback whales from Antarctica
- Green turtle migrate into the Pacific
- East Australian Current travelling south



Source: The Conversation

Acknowledgement:  
Maria Zann





## In Summary

- New Hope's own modeling shows that the mine will worsen water quality in the Great Sandy Strait Ramsar Wetland
- Consequences for the food web, interconnected habitats, processes and threatened species in the Great Sandy Strait have not been assessed
- If the mine proceeds the monitoring required in the Qld Government issued Environmental Authority is unlikely to detect impacts on the ecosystem

Do we have the luxury to stand by while new coal mines are being approved on our doorsteps, or do we have a moral responsibility to act?

**WILL YOU HELP STOP COAL MINING FRASER ISLAND**

**PRESERVATION vs EXPLOITATION**

Learn why New Hope Colton Coal Mine is a BAD IDEA!

**SPEAKERS:**

PROFESSOR JON BRODIE (Centre for Excellence, Coral Reef Studies, UQ)

DR. TANZI SMITH (MRCCC)

JOHN SINCLAIR (PICO)

Q&A PANEL

**DATE: 30TH AUGUST, TIME: 6PM TO 8PM**

**PLACE: EUMUNDI SCHOOL OF ARTS HALL**

ADMISSION BY DONATION TO COVER COSTS

HOSTED BY THE GREAT SANDY STRAIT SAVIOURS

**Want to know more?**

Great Sandy Strait Saviours Event

Speakers:

Professor Jon Brodie

John Sinclair AO

**Eumundi School of Arts Hall**

**30 August, 6-8pm**

Let Minister Frydenberg know that this project needs a proper assessment under our national environmental laws

**Thank you**

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