

# South Cessnock Flood Mitigation Scheme



*Gordon  
Ave, South  
Cessnock  
– 21 April  
2015*

# Outline

- Responsibly for Flooding
- Mine Subsidence in South Cessnock
- Flood Mitigation Options & Cost Benefit Assessment
- South Cessnock Flood Mitigation Scheme
- Funding
- Way Forward
- Have Your Say

# BACKGROUND

## CCC Responsibilities:

- NSW Flood Prone Land Policy
- Identify and manage flood risks

## Progress:

- Formed a Floodplain Management Committee
- Collected data (after June 2007)
- Completed Flood Study (Cessnock 2010, 2016, 2019)
- Conducted Floodplain Risk Management Study & Plan (Cessnock 2016)
- Implemented Floodplain Risk Management Plan (2016 ongoing)

# BACKGROUND

## Further Progress:

- Voluntary House Raising Scheme (2018 - ongoing)
- Bund Wall Scheme (Concept Design 2018)
- Flood Warning (Concept Design 2020)

# MINE SUBSIDENCE IN SOUTH CESSNOCK

June 2018

Council approached Subsidence Advisory NSW seeking financial support for flood mitigation.

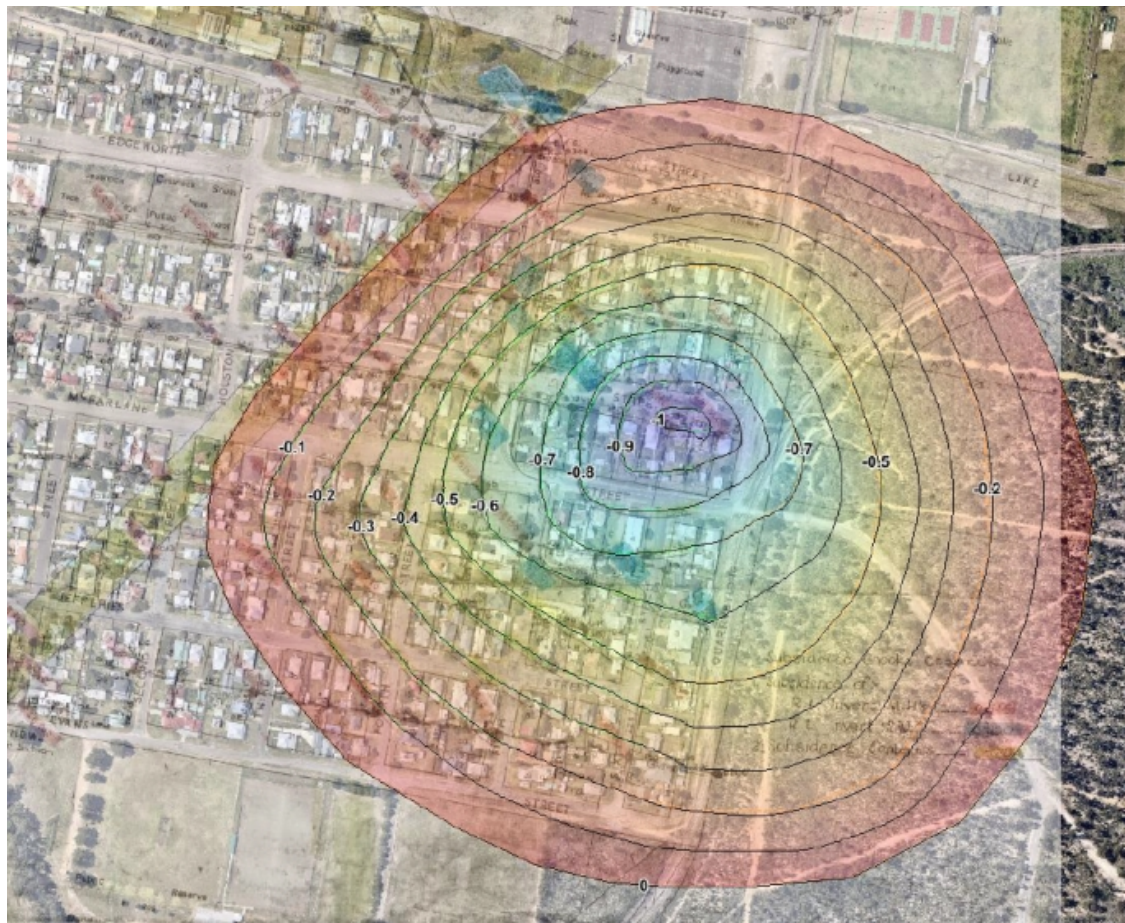
August 2018 – September 2019

Subsidence Advisory NSW undertake the South Cessnock Mine Subsidence Flood Investigation.

November 2019

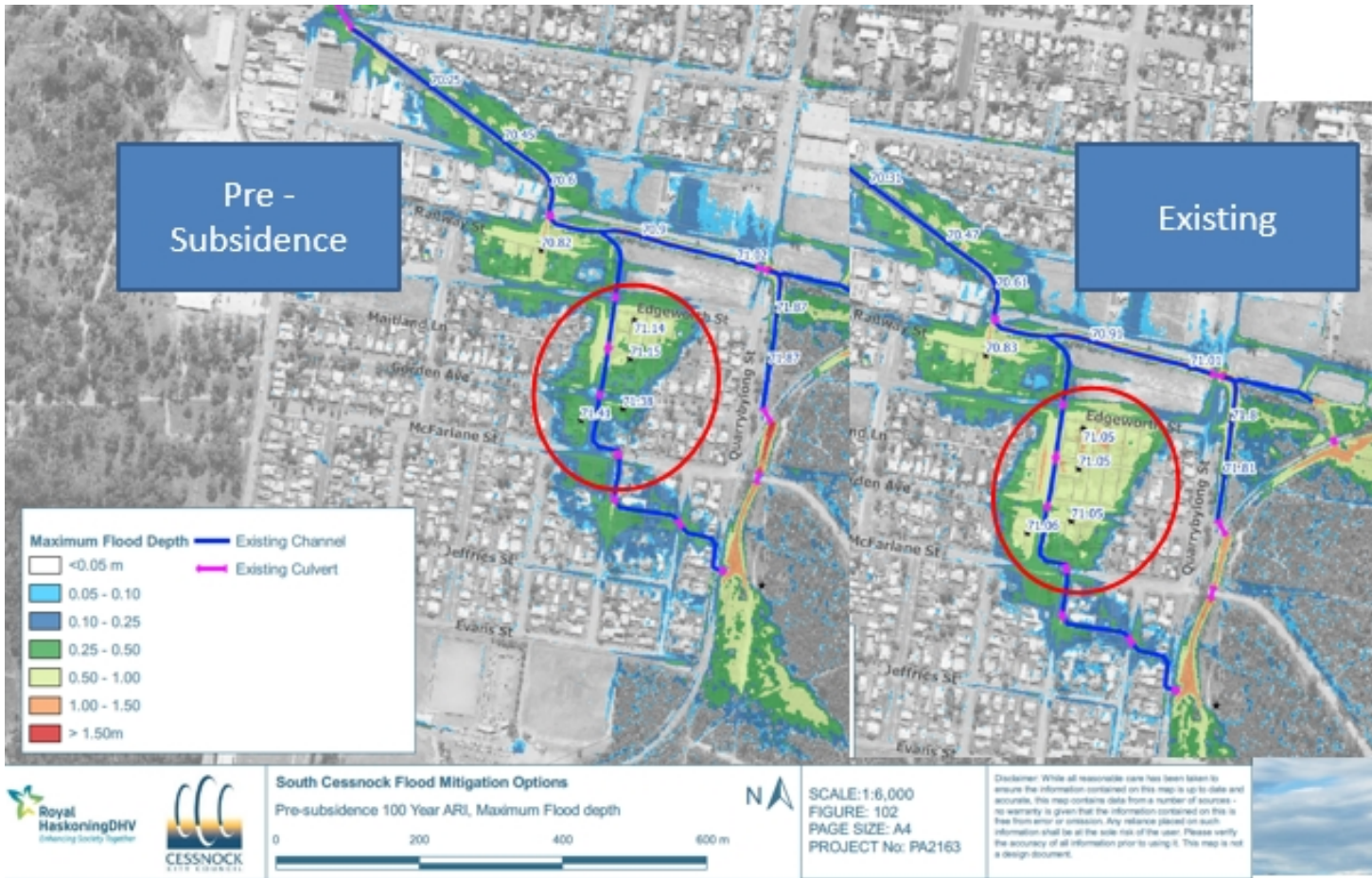
Community meeting held to present findings.

# MINE SUBSIDENCE IN SOUTH CESSNOCK



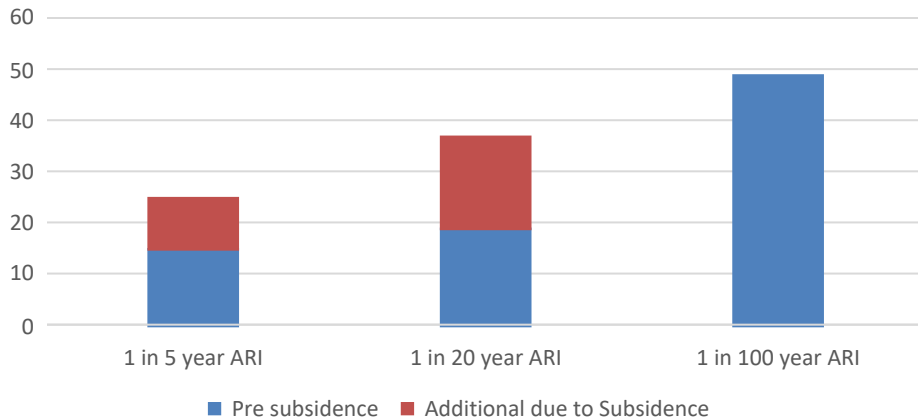
*Attractive Thriving Welcoming*

# MINE SUBSIDENCE IN SOUTH CESSNOCK

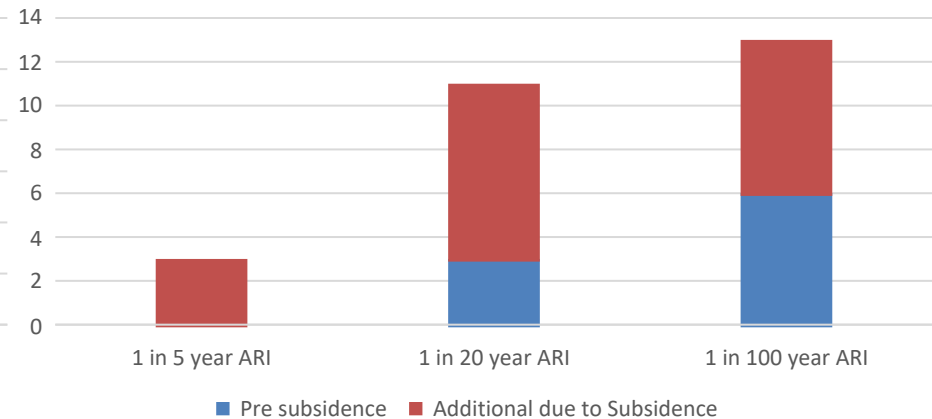


# MINE SUBSIDENCE IN SOUTH CESSNOCK

Number of Homes Experiencing  
YARD FLOODING



Number of Homes Experiencing  
OVER FLOOR FLOODING





# FLOOD MITIGATION OPTIONS AND COST BENEFIT ASSESSMENT

**Flood mitigation options** examined in the study:

- ❖ Bund wall
- ❖ Raising of Quarrybylong Street
- ❖ Diversion of Kearsley Creek channel
- ❖ Lowering of Edgeworth Street

In addition Council compared the engineering options with:

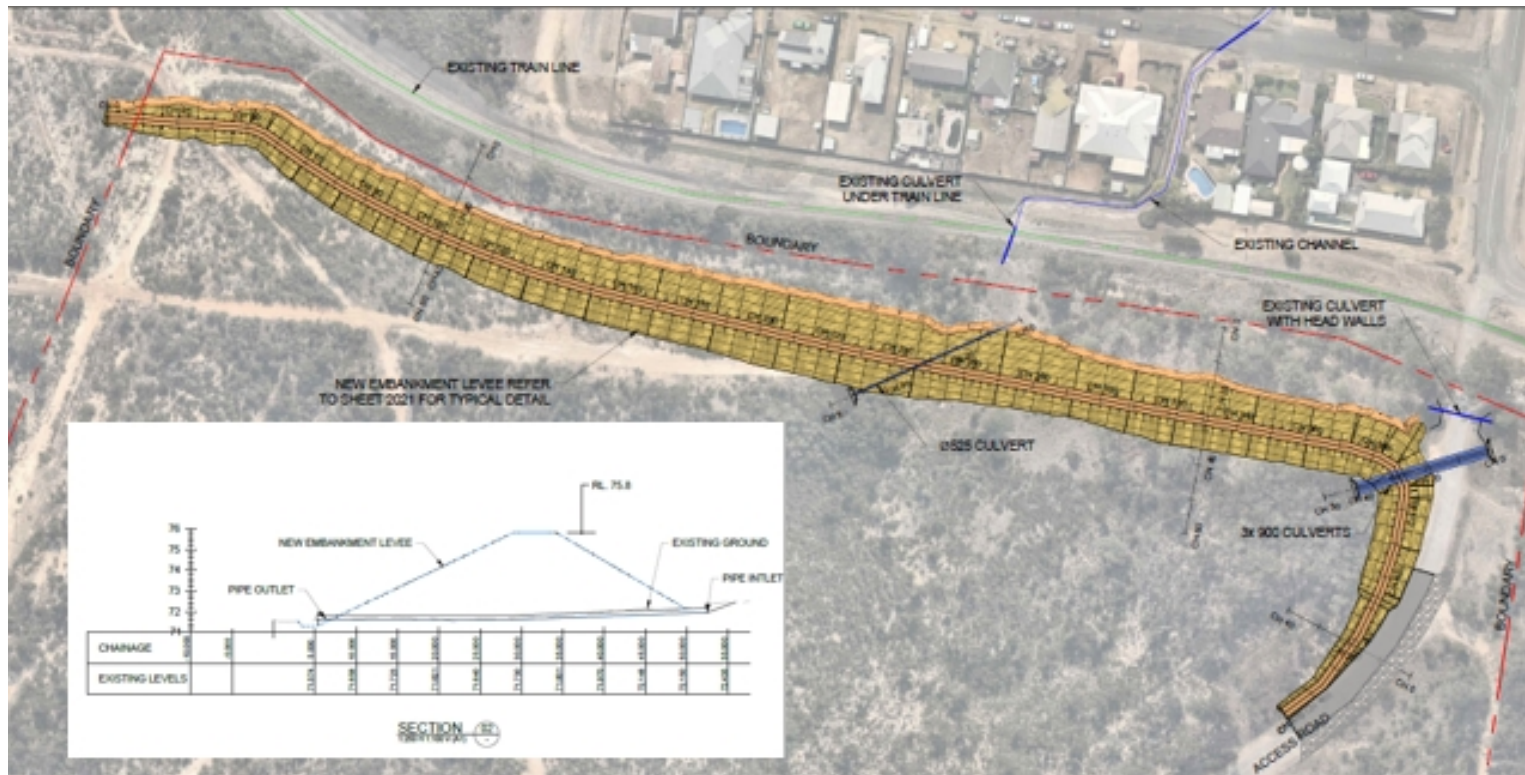
- ❖ Voluntary House Raising
- ❖ Voluntary House Purchase

# SOUTH CESSNOCK FLOOD MITIGATION SCHEME

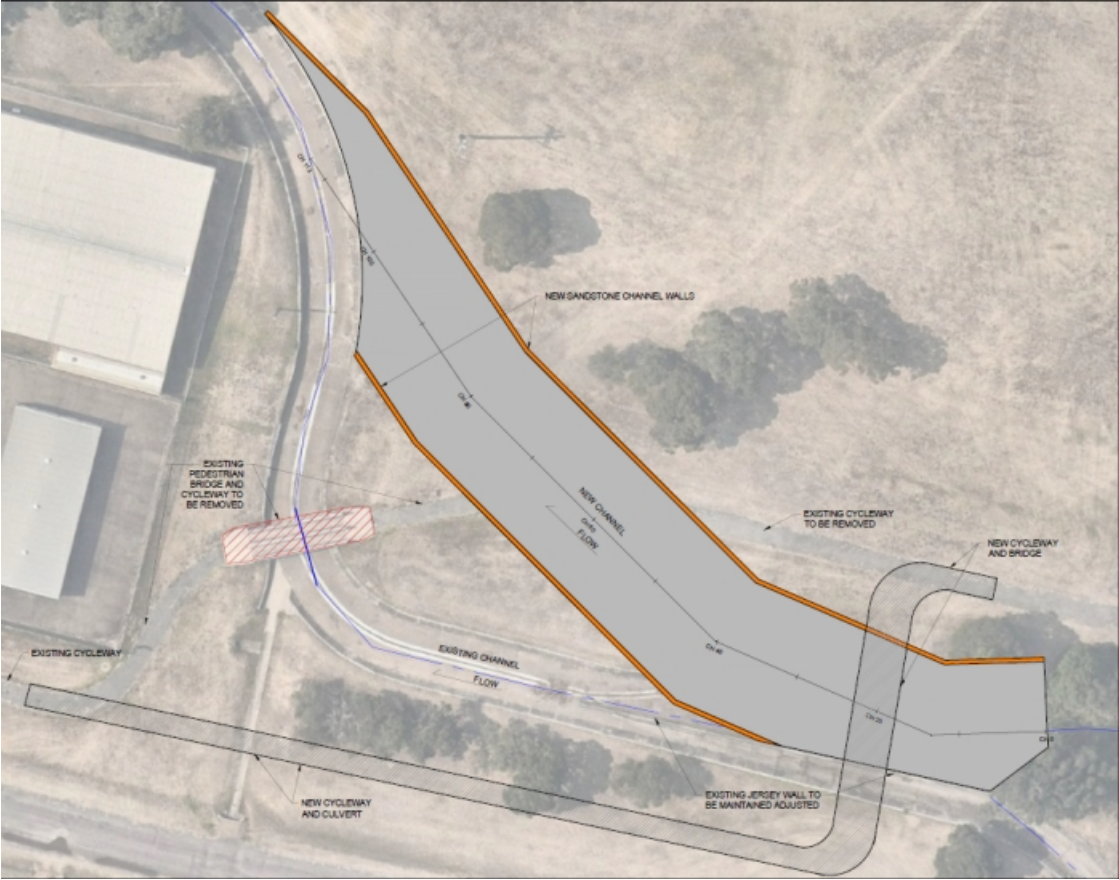


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# BUND WALL



# DIVERSION CHANNEL



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# RAISE QUARRYBYLONG STREET



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# SOUTH CESSNOCK FLOOD MITIGATION SCHEME

Factors considered in development of the Scheme

- Costs
- Reduction in flood damages
- Affordability and cost effectiveness
- Safety and flood hazard reduction
- Achieving flood depths at or below pre-subsidence levels
- Social and environmental impacts

# SOUTH CESSNOCK FLOOD MITIGATION SCHEME

## The Scheme:

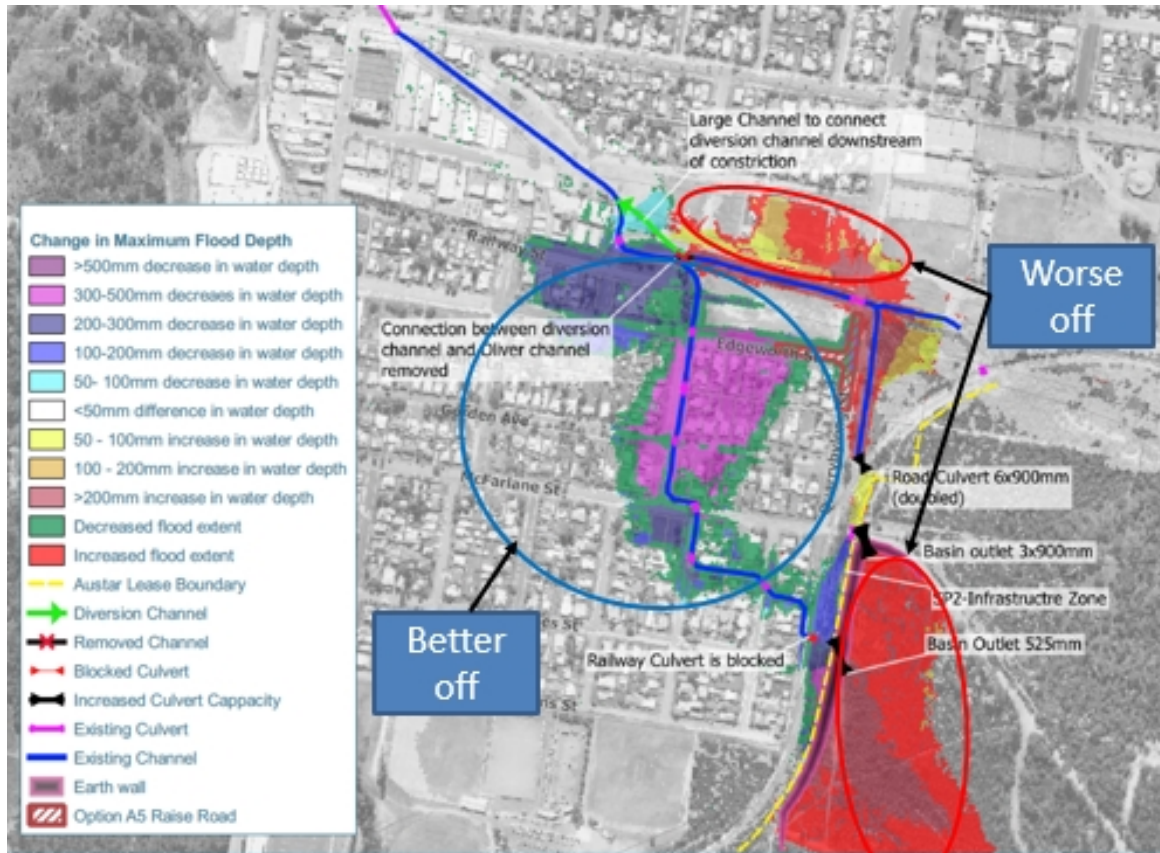
- ❖ Bund wall
- ❖ Diversion of Kearsley Creek channel
- ❖ Raising of Quarrybylong Street
- ❖ Voluntary House Raising (5 properties)

## The Benefits:

- Lowers average flood depth 14cm lower than average pre-subsidence level
- No home will experience over floor flooding in a 1 in 100 year flood
- Safe pedestrian access to all homes in a 1 in 100 year flood

# SOUTH CESSNOCK FLOOD MITIGATION SCHEME

## Change in Flood Depths in 1 in 100 year ARI Flood





# FUNDING

- Estimated Cost of Flood Mitigation Scheme \$4.5M
- Potential external funding:
  - NSW Floodplain Management Grant
  - Subsidence Advisory NSW
  - Hunter Water
- Cessnock City Council:
  - Council's contribution depends on external funding raised

# WAY FORWARD

## Targets:

- November 2020  
Secure external funding
- Mid 2021  
Detail design completed and commence construction
- End 2022  
Construction completed

# HAVE YOUR SAY

Info Pack:

**To be emailed or posted.**

Write:

**Cessnock City Council  
62-78 Vincent St, Cessnock NSW 2325**

Email:

**[council@cessnock.nsw.gov.au](mailto:council@cessnock.nsw.gov.au)**

Phone:

**49934100**

# Lower Edgeworth Street

