

**Marshalls Creek Floodplain 'man made' obstructions  
from Wooyung to Brunswick Heads.**

# The Brunswick Valley Catchment

**Source:**

Taken from BSC Website <http://www.byron.nsw.gov.au/environment>

*“Byron Shire’s commitment to an ecologically sustainable future involves **balancing** the protection and enhancement of our sensitive and beautiful natural environment with **improving social** and **economic outcomes** for the **residents of the Shire**.”*

## **NOTICE OF MOTION 9.4**

**Lowering Flood Levels in North Byron Floodplain**

**File No: I2017/605**

**Cr Alan Hunter**

**25/5/2017**



**Marshalls Creek Floodplain 'man made' obstructions  
from Wooyung to Brunswick Heads.**

# The Brunswick Valley Catchment



**Photo Source:** New Brighton Trading Post - Facebook

**Brunswick Valley NSW**



An aerial photograph showing a wide river on the right side of the frame, with a large area of land on the left and center that appears to be flooded or saturated with water. The terrain is a mix of green and brownish-green, suggesting a rural or agricultural area. The text is overlaid on this image.

## Cyclone Debbie Flood Event March 31, 2017

“Byron Shire and our neighbouring Shires have experienced the devastating effects of Cyclone Debbie.

Over **3,000 homes** in Byron Shire were affected. Whilst the initial relief and clean up has now ceased there are many of our Shire **residents & businesses** that will require assistance and feel the effects of this tragedy for months to come.”

**Source:** Destination Byron Newsletter April 2017

# **The Brunswick Valley Catchment**

## **THE BACKGROUND**



# The Brunswick Valley Catchment prior to 1970 ...

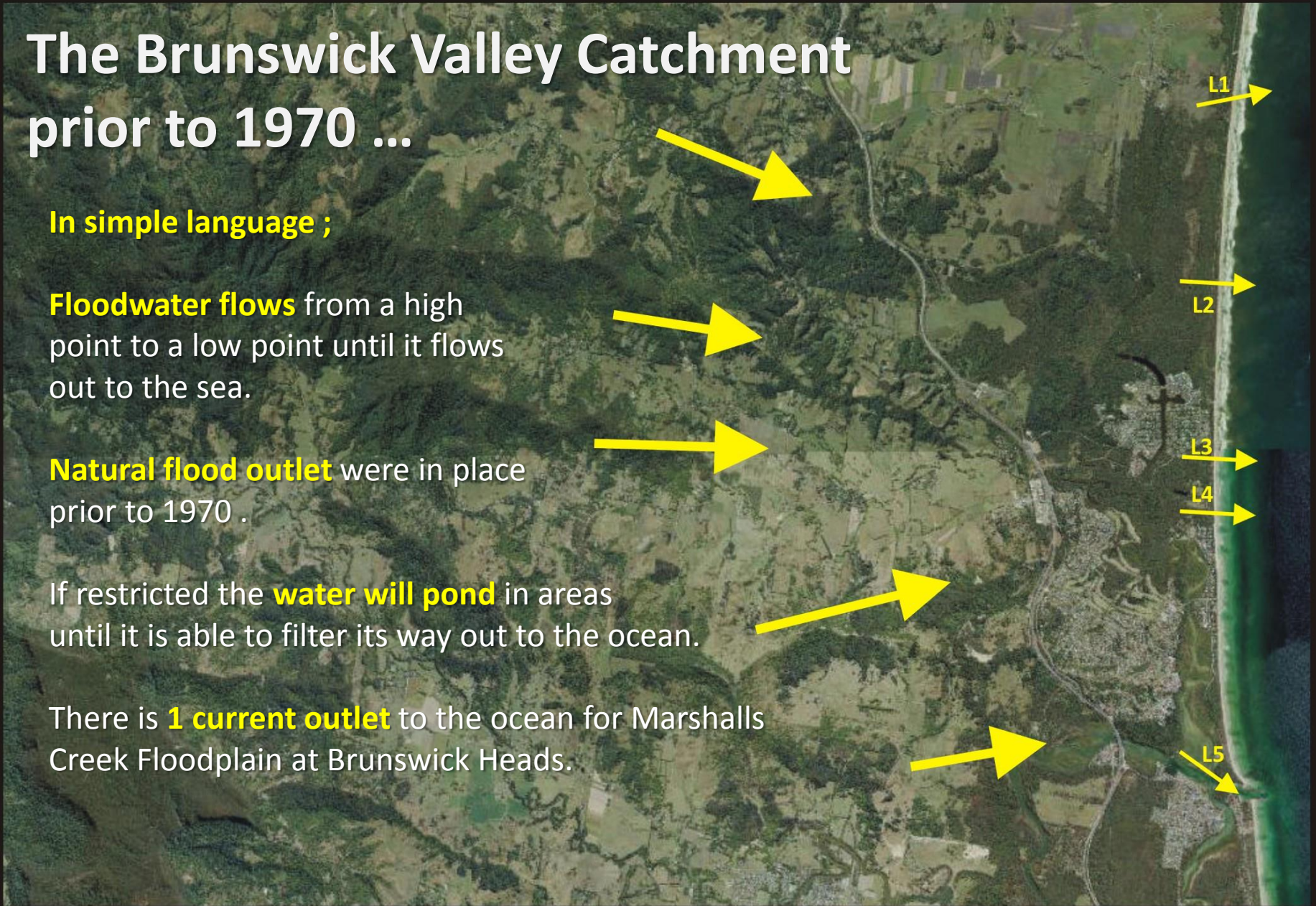
In simple language ;

**Floodwater flows** from a high point to a low point until it flows out to the sea.

**Natural flood outlet** were in place prior to 1970 .

If restricted the **water will pond** in areas until it is able to filter its way out to the ocean.

There is **1 current outlet** to the ocean for Marshalls Creek Floodplain at Brunswick Heads.

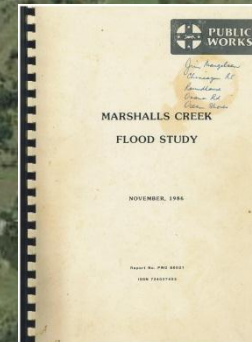




Revisiting Past Studies & Reports...  
**Marshalls Creek Flood Management Plan - North Byron Shire**

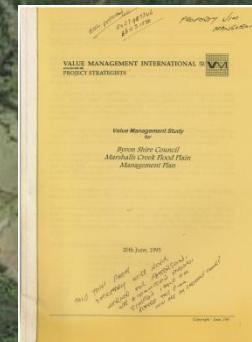
**Public Works Department**

Ocean Shores Development Hydrology & Hydraulics  
Point 6  
December 19, **1984**



**Public Works Department**

Marshalls Creek Flood Study Document  
November **1986**.



**Brunswick Valley Flood Study Letter to Byron Council**

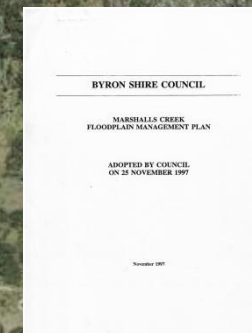
Requesting 6 flood mitigation options.  
May 7, **1988**.

**Summary of Options**

Computer Modelling for Marshalls Creek Floodplain  
June 8, **1995**

**Byron Shire Council**

Marshalls Creek Floodplain Management Plan  
Adopted by Council on November 25, **1997**.



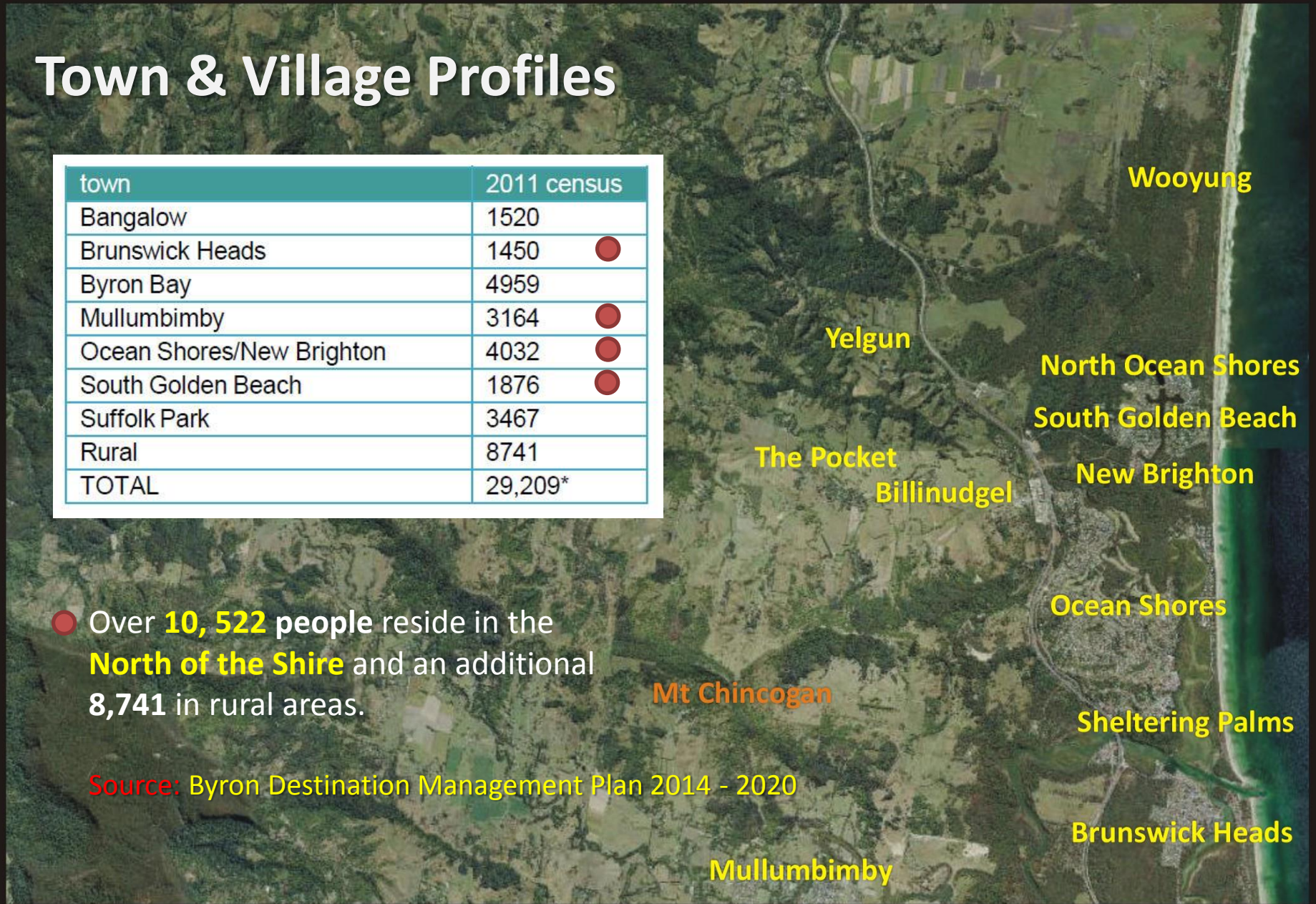


# Town & Village Profiles

town	2011 census
Bangalow	1520
Brunswick Heads	1450 ●
Byron Bay	4959
Mullumbimby	3164 ●
Ocean Shores/New Brighton	4032 ●
South Golden Beach	1876 ●
Suffolk Park	3467
Rural	8741
TOTAL	29,209*

- Over **10,522** people reside in the **North of the Shire** and an additional **8,741** in rural areas.

Source: Byron Destination Management Plan 2014 - 2020





## Cyclone Debbie Flood Event March 31, 2017



Too many of our citizens were negatively impacted by this recent flood. **Homes, businesses and community infrastructure** in areas of our shire have been seriously affected and it is without doubt, Council has been asleep at the wheel in preparation for such events. **Source: Cr Alan Hunter NOM 9.4**



**Photo Source: 1. Billinudgel facebook, 2. Byron Shire News facebook, 3. New Brighton Boardriders, 4 & 5 Byron Shire Council facebook.**



# Rivers, Creeks & Streams ...

Source: Cr AI Hunter NOM 9.4

The North Byron floodplain is not unlike a **big dam**. A large catchment area with a now, quite **restricted outlet or spillway**, backing up into homes and shops.

\*There have been a number of **natural spill ways closed** off over the years for one reason or another, some developer initiated, impacting on the **flow of flood waters**

\***Population pressure** will continue to place demand on extending the residential area boundaries

\*Pressure will continue to be placed on council **to build structures to protect** developed areas and foreshores within the flood zone

Photo Source: 1 & 2 New Brighton Boardrider aerial video April 2017





# Natural Ocean Outlet at North Ocean Shores L2 ...



Photo Source: 1 & 2 Judy Anning widow Project Manager Ocean Shores Estate.



# North Ocean Shores outlets closed in 1976 L2 ...

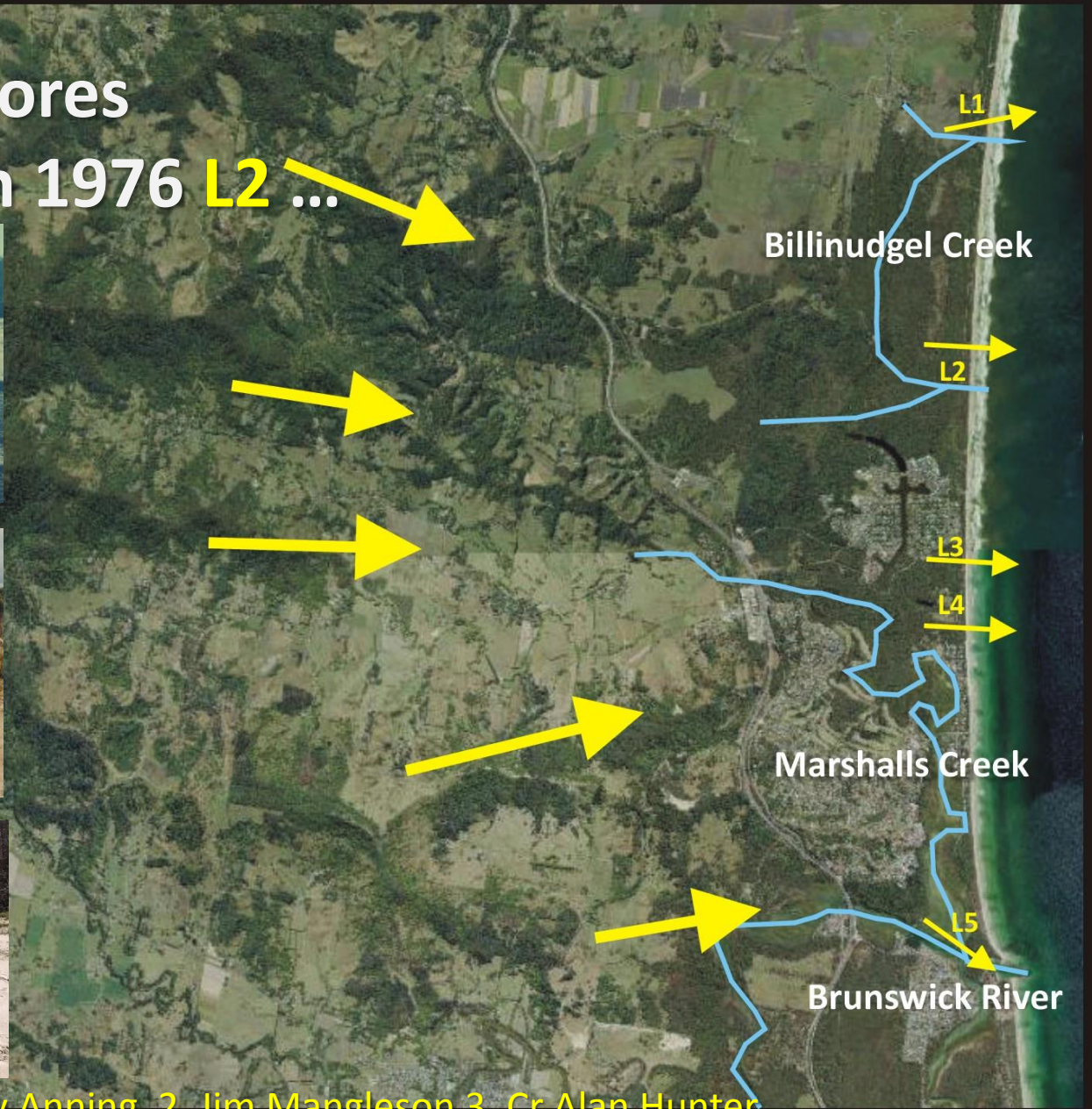
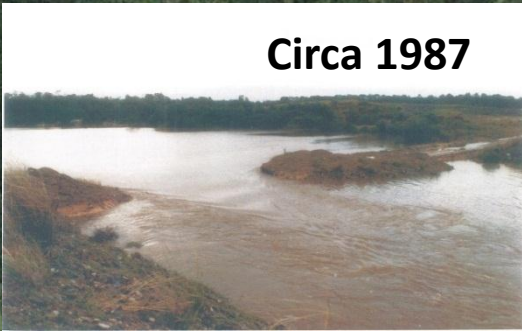


Photo Source: 1. Judy Anning 2. Jim Mangleson 3. Cr Alan Hunter.



# Kallaroo bund built in 1992 ... culverts 2008

Circa 1987



2008



2017

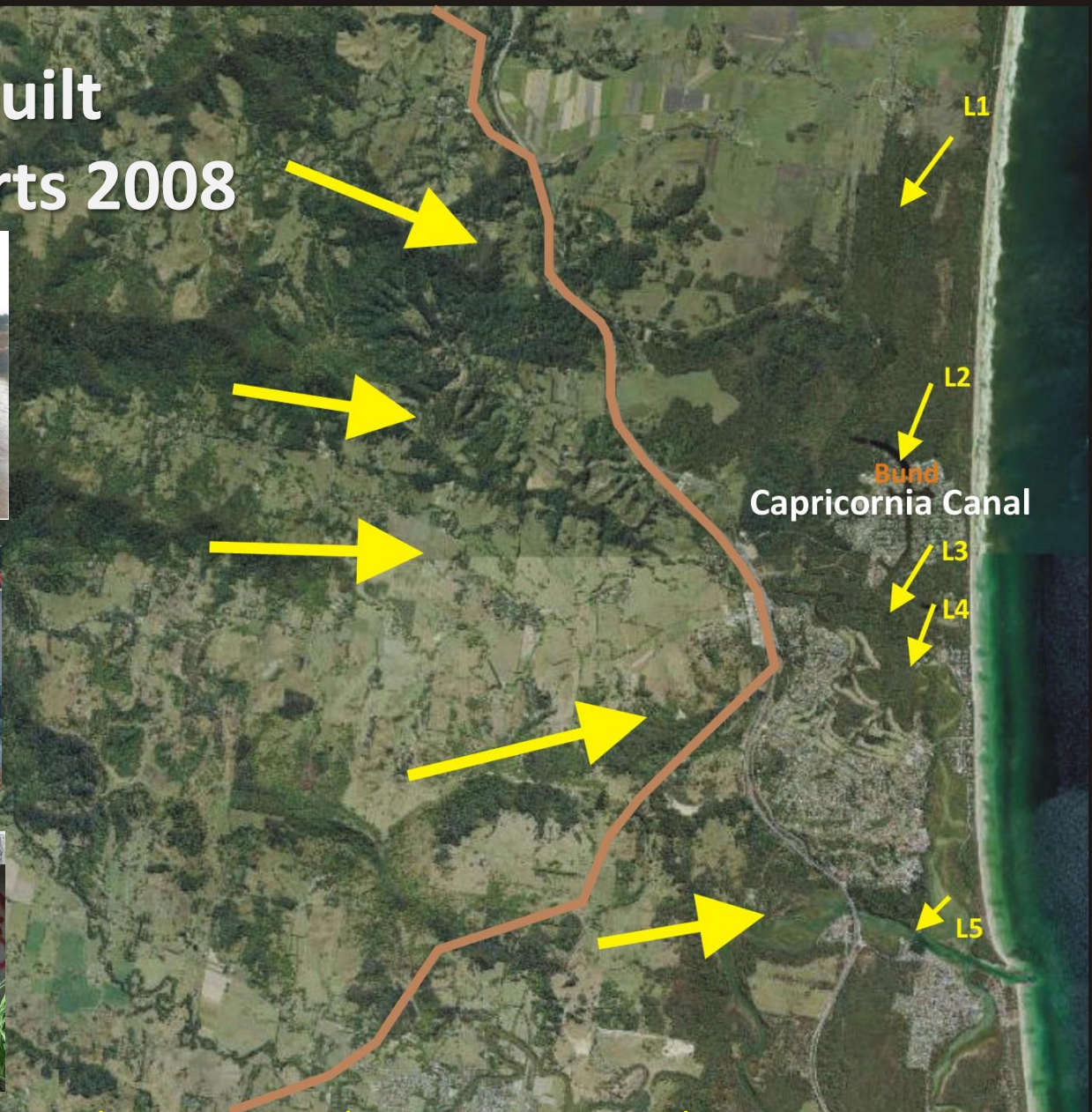


Photo Source: 1. Jim Mangleson 2. Tweed Newspaper 3. Cr Alan Hunter.



# South Golden Beach Levee Bank built 1989, pump installed after 2005 flood ...

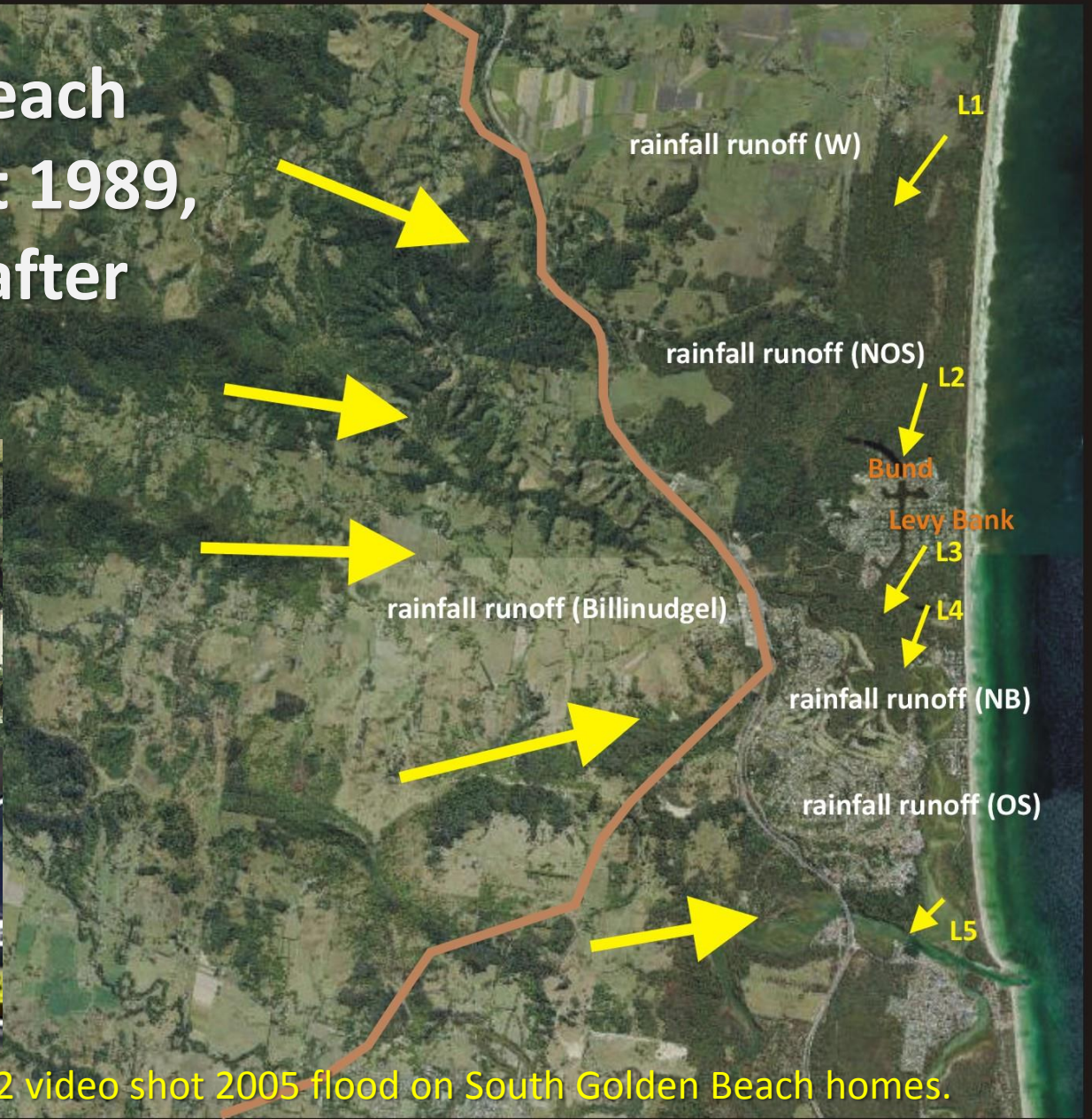


Photo Source: 1 Six Maps, 2 video shot 2005 flood on South Golden Beach homes.



# **The Brunswick Valley Catchment**

## **THE HOT SPOTS**



# Hot Spots on the Floodplain



These **hot spots** hold the key to reducing flood levels.



# The Railway Line



**Plays a role in holding the water back**

Source: minutes South Golden Beach Flood Report 1988



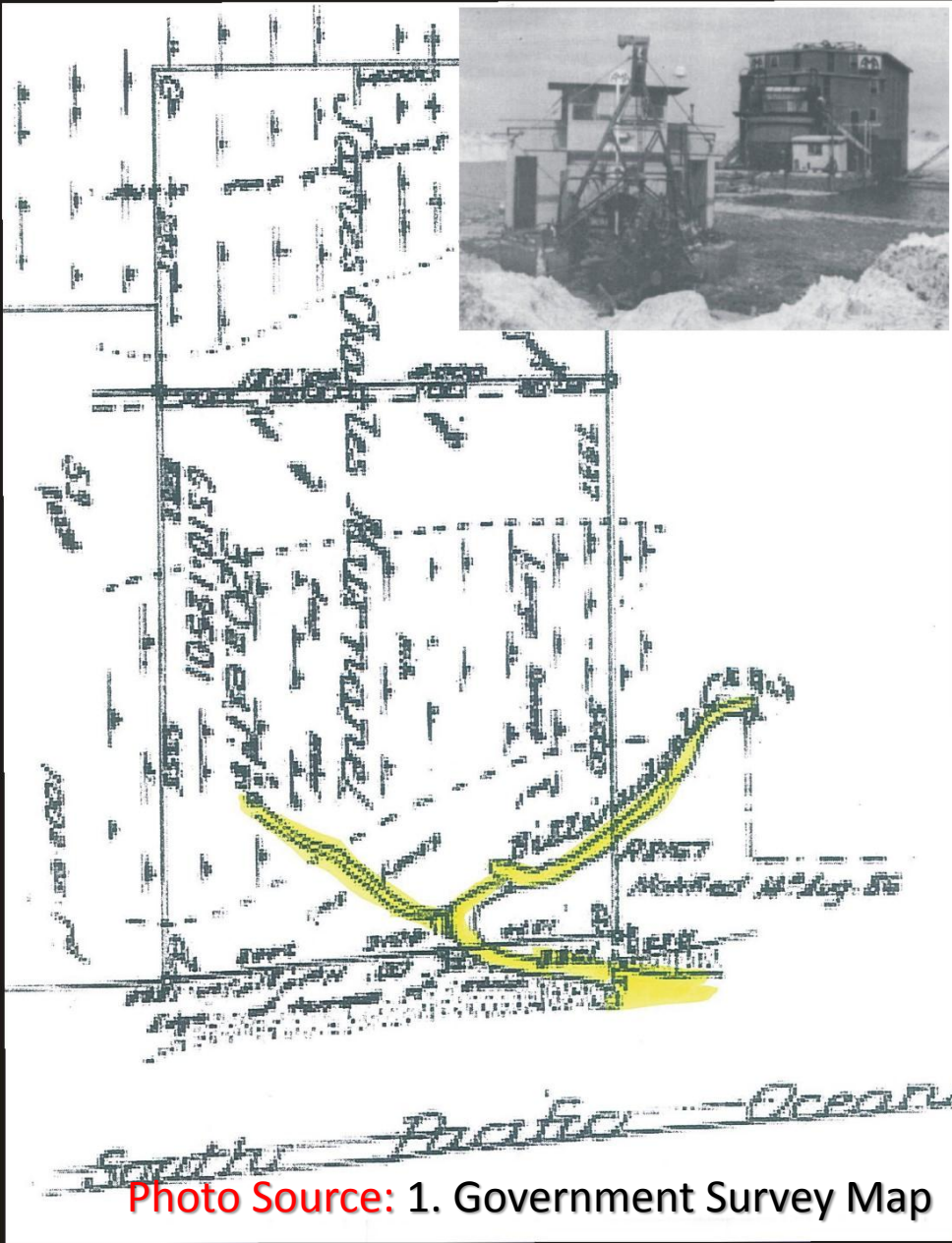
# L1 - Wooyung



**Outlet closed before 1979**

Source: Mooball Crabbes Creek Drainage Trust District Plan





**Photo Source:** 1. Government Survey Map

2. Six Maps NSW Government.



# L2 - North Ocean Shores



**Outlet closed 1976**

Photo Source : Six Maps - see Council minutes 27<sup>th</sup> July 1976.



# Topographic Map (A) NOS outlet (B) Wooyung outlet

Photo Source: 1. Current flood consultants map.



Photo Source: 2. Judy Anning.



Photo Source: 3. Kathy Cherry Wooyung.



# The Bund & Culverts



Source: see Council minutes 27<sup>th</sup> July 1976.

**Bund built circa 1991 ... Culverts added in 2008**



# SGB Levee Bank



Source: see Ray Sargent's Report 1988.

**built in 1989 higher than recommended**



# L3 - South Golden Beach



Source: see 1954 PWD aerial.

Photo Source: Six Maps

**Community Centre built 1992 at flood outlet**



# L4 - New Brighton



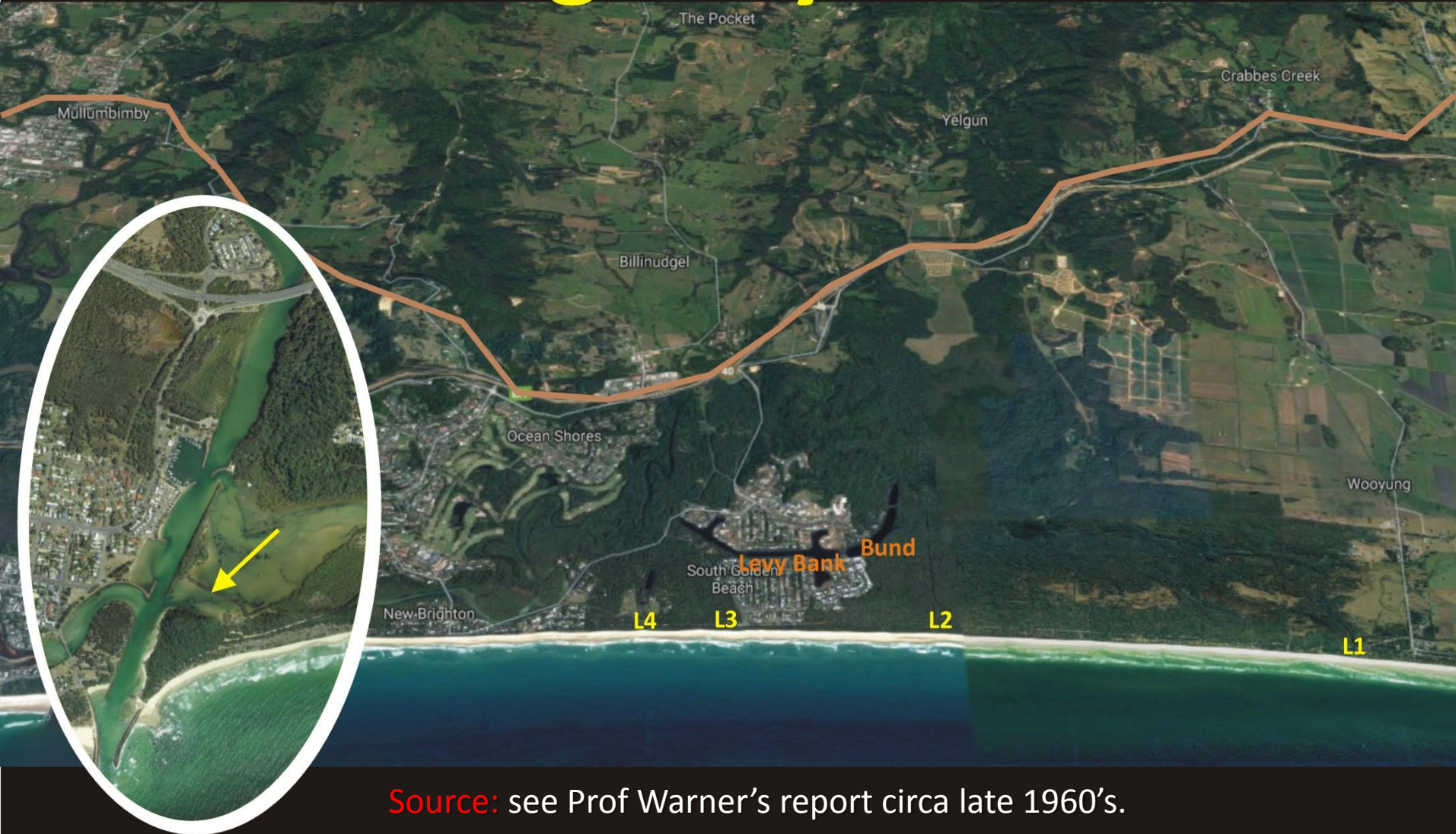
Source: see 1954 PWD aerial.

Photo Source: Six Maps

## Flood outlet blocked by development



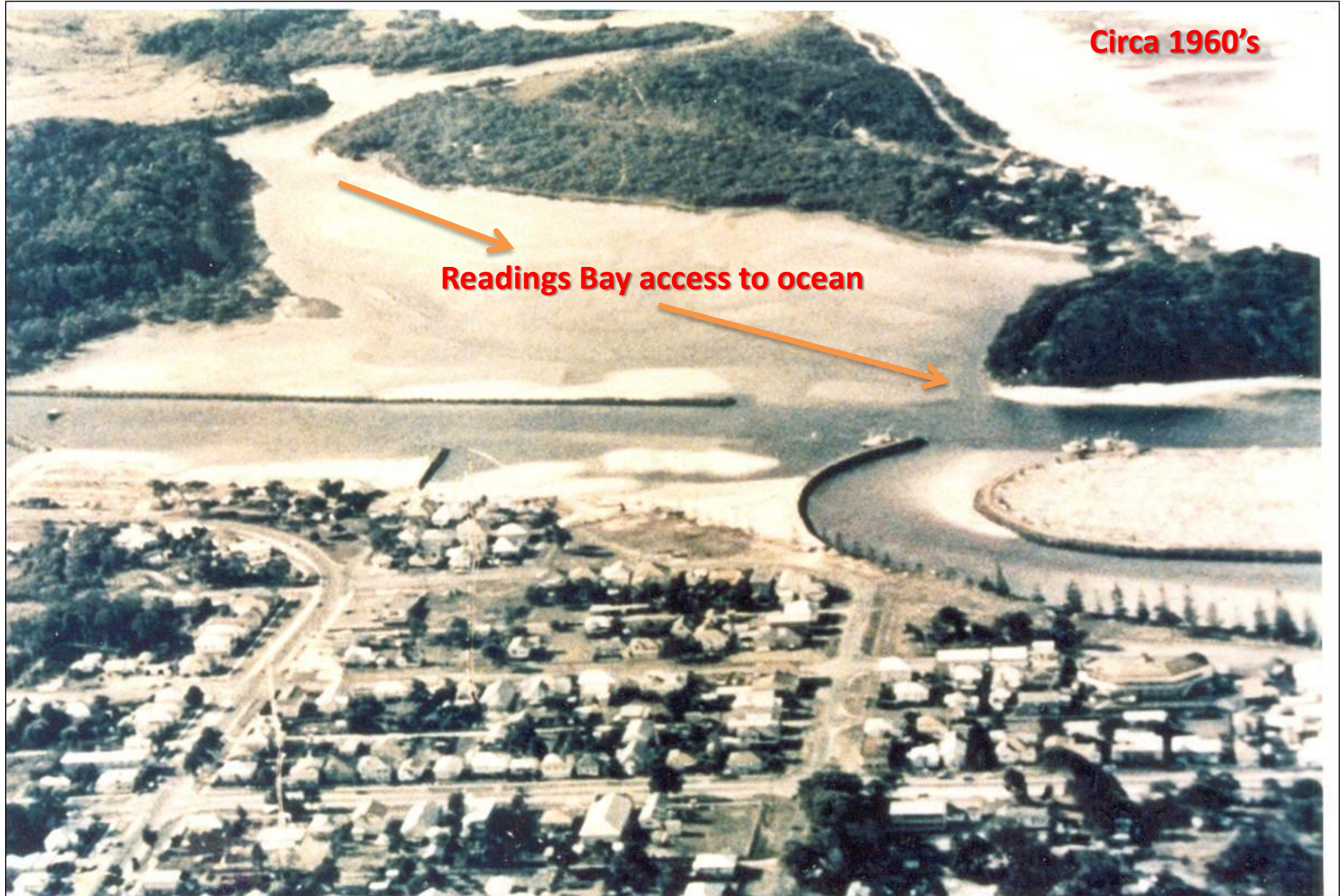
# L5 - Readings Bay



**Source:** see Prof Warner's report circa late 1960's.

**Rock wall built in the 1970's**





**Circa 1960's**

**Readings Bay access to ocean**

**Photo Source:** Frank Mills Former Byron Shire Councillor



**Photo Source:** Frank Mills Former Byron Shire Councillor

**Readings Bay Rock Wall  
built in the 1970's**

**The ONLY flood outlet to  
the ocean for Marshalls Creek !!!**





# **Ocean Flood Outlets**

## **CASE STUDIES**



Proposed **case studies** for ocean outfalls & flood mitigation;



Photo Source: Google Search 'Flood Outlet Structures'





## **Notice of Motion No. 9.4**

Lowering Flood Levels in North Byron Floodplain

**File No: I2017/605**

### **17-189 Resolved:**

1. That Council use the North Byron Floodplain Risk Management Study and Plans to investigate potential methods for lowering
  2. flood levels in the Marshall's Creek floodplain through options such as floodwater outlets, dredging, rock wall alterations and
  3. flood levies.
- 
2. That Council considers doubling the funding for north urban drainage maintenance and rural drainage maintenance from all available resources to speed up the flood mitigation works in the Marshalls Creek Floodplain including:-
    - a. Gutter maintenance
    - b. drain and channel cleaning
    - c. increasing pipe sizes where necessary
    - d. road culverts maintenance; and
    - e. causeways
- 
3. That the maintenance program is reviewed annually.
- 
4. That to support items 1 & 2 above, staff provide funding source options and wider financial implications to the 22 June 2017 Council meeting, to be considered as part of the adoption of the 2017/18 Operational Plan.
- 
5. That Council establish a North Byron Floodplain PRG for a 12 month period to examine the implications of the recent flood event and review previous modelling and to invite community membership and notify past members.
- 
6. That parts 1 to 5 inclusive here of are resolved without admissions and without prejudice.  
(Hunter/Richardson)

**The motion was put to the vote and declared carried.**

Crs Coorey, Cameron and Hackett voted against the motion.