

# **CASE STUDY Facts ... North Byron Shire Flood Mitigation Project for Cr David Warth**

# **Community-based Consultation**

Identifying the natural flood outlets along the coastline between Wooyung and the mouth of the Brunswick River at Brunswick Heads.



- **1.** Investigate further the flood history documents and historical timeline facts of the establishment of the Ocean Shores Estate.
- **2.** Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.
- **3.** Identify the legal obligations of Council to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.
- **4.** Identify possible flood mitigation strategies to lower the flood levels on the Marshalls Creek Floodplain and along the coastline from Wooyung to Brunswick Heads.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.





#### **Observation 1:**

1947 aerial photo showing a number of natural floodwater flow channels to the ocean.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.



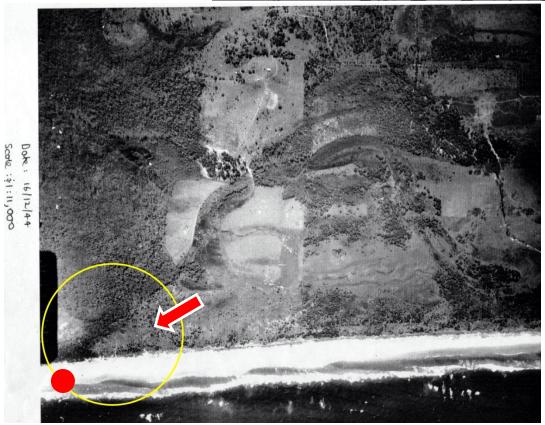


# **Observation 2:**

1947 yellow area showing location of the outlet just north of Fern Beach.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.





# **Observation 3:**

Additional proof identification of North Ocean Shores flood outlet 1944.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.





**Observation 4:** 

Circa 1974 Development of Stage 2 North Ocean Shores showing outlet open and flowing.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.







#### **Observation 5:**

1974 Development of Stage 2 North Ocean Shores showing outlet open and flowing.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.







# **Observation 6:**

1976 North Ocean Shores **outlet closed** and **dune stabilisation** undertaken at the outlet mouth. (see slide 13 - Deputy Premier's letter to Council 1982)

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.





#### **Observation 7:**

1980 North Ocean Shores Outlet closed.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.





**Observation 8:** 

1987 Outlet still closed.

Identify the natural flood overflow locations along the coastline from Wooyung to the mouth of the Brunswick River.



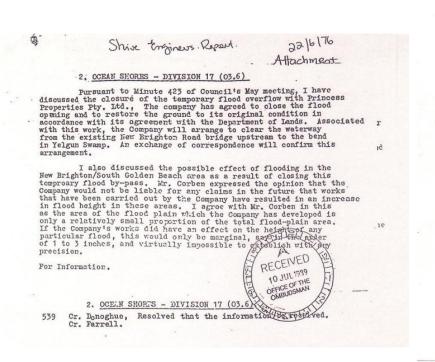


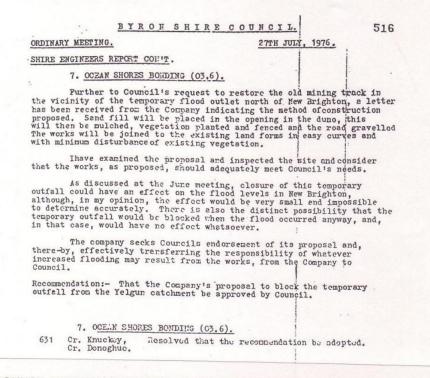
# **Observation 9:**

2007 Topographic map of land showing AHD levels around the outlet (A) at North Ocean Shores.

Identify the **legal obligations of Council** to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.





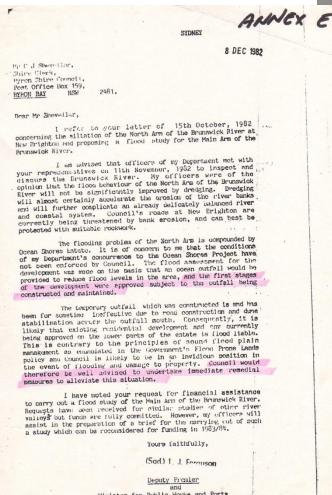


COUNCIL RECORDS PROVIDED BY OMBUDSMAN SHOWING COUNCIL RESOLUTION TO ACCEPT LIABILITY FOR FLOODING CAUSED BY COMPANY COMPLYING WITH REQUEST TO CLOSE OUTLET

#### **Document 1:**

1976 BSC Engineer's Report and Minutes of Council Meeting.

Identify the **legal obligations of Council** to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.





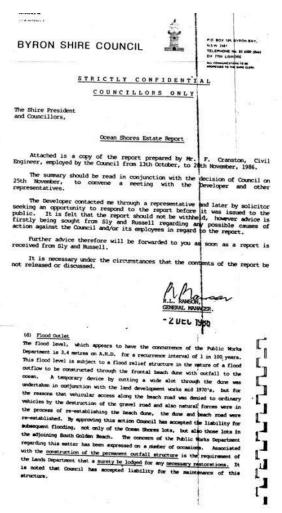
#### **Document 2:**

1982 L. J. Ferguson Deputy Premier Minister for Public Works and Ports letter to Council.

Regarding the temporary outfall being ineffective due to road construction and dune stabilisation across the outfall mouth ...

'Council would therefore be well advised to undertake immediate remedial measures to alleviate this situation.'

Identify the **legal obligations of Council** to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.





#### **Document 3:**

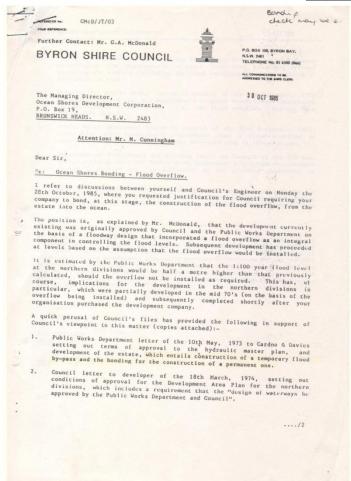
1982 Report to Councillors about the construction of a permanent flood outlet.

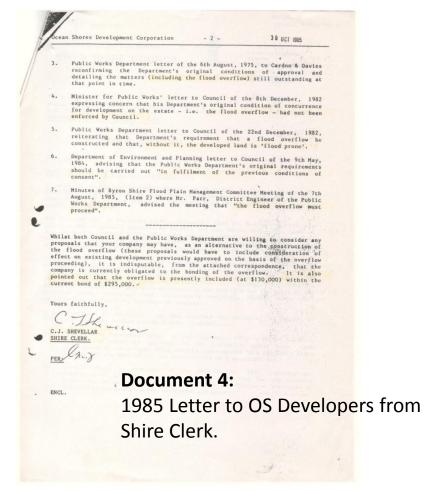
'By approving this action Council has accepted the liability for subsequent flooding, not only of the Ocean Shores lots, but also those lots in adjoining South Golden Beach.'

'It is noted that Council has accepted liability for maintenance of this structure.'

Identify the **legal obligations of Council** to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.

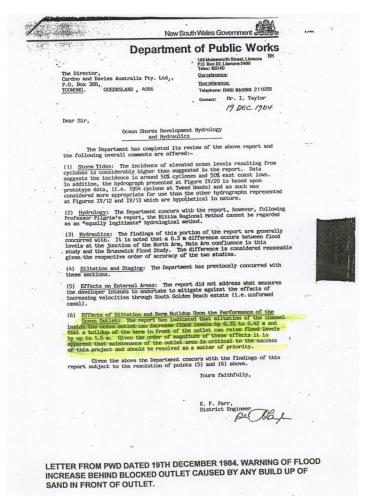






Identify the **legal obligations of Council** to provide a 'duty of care' for those residents living on the Marshalls Creek Floodplain.





#### Document 5:

1984 Public Works letter warning of increased flood levels behind blocked outlet caused by a build up of sand.

Identify possible flood mitigation strategies to lower the flood levels on the Marshalls Creek Floodplain and along the coastline from Wooyung to Brunswick Heads.



# **Report 1:**

**Proposal Brief:** To identify 3 locations along the coastline from Wooyung to the Brunswick River mouth to position flood pumps to remove excess flood water off the floodplain into the ocean in order to lower the flood levels on the floodplain at critical times during a major flood event.

# The location for the pumps were selected on the basis that they are:

- 1. Low elevation (around 1.2m/1.3 AHD), hence will be an area that will be inundated early in a flood event.
- 2. Still have semi-intact remnant drainage channels that will carry floodwater from overflow from Marshalls Creek or Billinudgel Nature Reserve.
- 3. Are located on Crown Land.

#### The 3 locations identified are:

- 1. North of sports field at New Brighton (153.5491, -28.5037)
- 2. South of levee at SGB (154.5499, -28.4984)
- 3. Billinudgel Nature Reserve north of Fern Beach (153.5506, -28.4856)

Identify possible flood mitigation strategies to lower the flood levels on the Marshalls Creek Floodplain and along the coastline from Wooyung to Brunswick Heads.





# Location 3:

Billinudgel Nature Reserve north of Fern Beach (153.5506, - 28.4856)

Identify possible flood mitigation strategies to lower the flood levels on the Marshalls Creek Floodplain and along the coastline from Wooyung to Brunswick Heads.

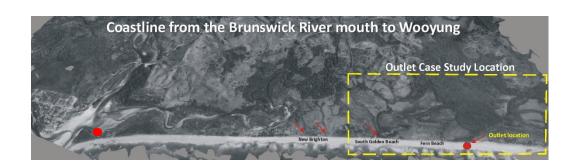




# Location 1 and 2:

- 1. North of sports field at New Brighton (153.5491, -28.5037)
- 2. South of levee at SGB (154.5499, -28.4984)

Identify possible flood mitigation strategies to lower the flood levels on the Marshalls Creek Floodplain and along the coastline from Wooyung to Brunswick Heads.



# **Readings Bay Rock Wall Obstruction**







Now blocked



# Committee members;

Website: https://brunswickvalley.com.au/flood-history/north byron shire.htm

Cr David Warth
David Brealey
Mark Russell
Jan Mangleson (OSCA President)
Denise Stammers (OSCA Treasurer)

Jill Spring
Heather Rowland
Diane Boyd
Greame Boyd
Michael James