

# Property specific actions

Discussion paper August 2020

Ipswich Integrated Catchment Plan







# CONTENTS

CHAPTER GOAL.....	3
MANAGING FUTURE FLOODS SURVEY .....	3
THE PROCESS.....	4
WHAT WE FOUND .....	5
CONNECTION WITH OTHER IICP CHAPTERS .....	5
BE INVOLVED.....	6
WHAT ARE PROPERTY SPECIFIC ACTIONS? .....	6
WHAT HAPPENS NEXT .....	7

Cover image: Bridge Over Bremer by M Fox  
This page: Walk Along the Bremer by M Fox  
Ipswich Enviroplan Photo Comp



## CHAPTER GOAL

To summarise what actions Ipswich homeowners can take to reduce the impact of flood on their properties, and to recommend ways council could facilitate the process.

## MANAGING FUTURE FLOODS SURVEY



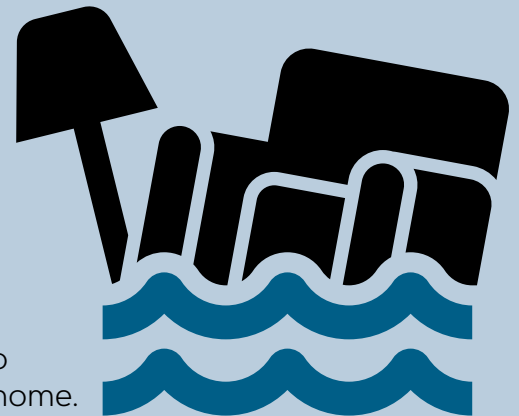
The survey had

**190 respondents**  
from **51 Ipswich suburbs**  
in late 2019.

During a major flood

- **35% expect water in their yard**
- **12% expect water above their floor**

Almost 85 per cent expected council reports to have information about the flood risk to their home.



The top 3 outcomes that mattered most in how council manages future floods were:

- **Increase community safety**
- **Don't cause negative effects upstream or downstream**
- **Reduce the cost of flood damages**

But measures such as raising floor levels and flood resilient design and materials were among the least preferred of those listed for managing flood risk in Ipswich.



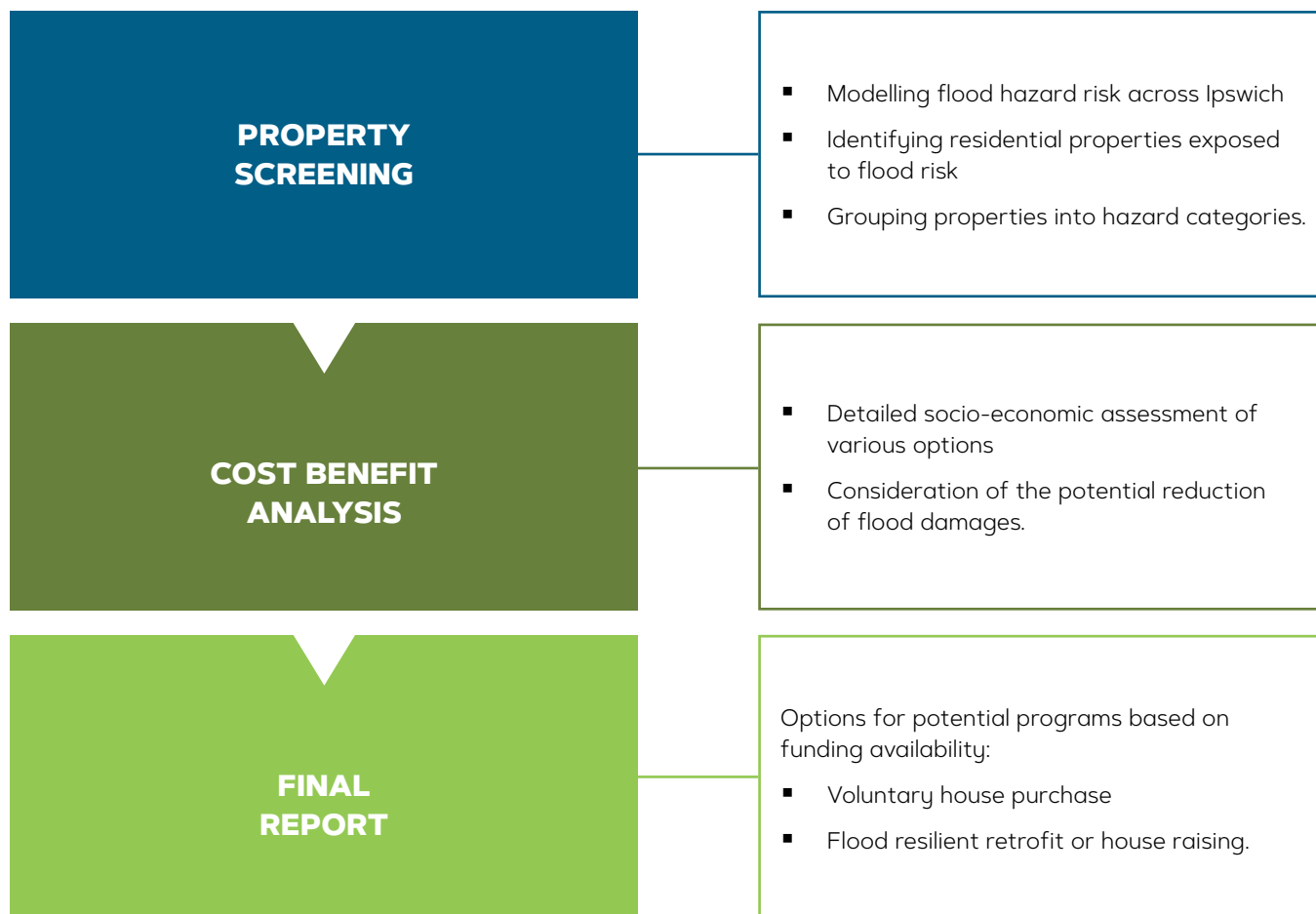
---

# THE PROCESS

---

This chapter focuses on detached residential properties, which means only individual houses have been considered. Other property types such as commercial properties or multi-unit properties were not included in the investigations.

A thorough process of flood modelling and socio-economic assessment has been undertaken to provide guidance on potential city-wide programs that could improve the flood resilience of Ipswich houses.



---

## WHAT WE FOUND

---

For Ipswich houses most at risk of hazardous floodwater there are a range of actions to enable occupants to prepare and recover as quickly and easily as possible.

Other councils with programs for property specific actions have based eligibility on the house's exposure to a chosen flood event. However Ipswich is also considering the hazard – how frequent, deep and fast-flowing the water is – when screening residential properties for eligibility. We considered multiple potential flood events, including more frequent events such as those with a 1 in 10 probability of happening in any given year.

The highest categories of hazardous water can cause structural damage, so those houses would potentially be eligible for voluntary purchase. There would be an emphasis on properties also exposed to more frequent flooding.

The next categories of hazardous water are also dangerous to people, but unlikely to cause house structural damage, so those houses would potentially be eligible for retrofitting with flood resilient materials and design.

The early data identified hundreds of houses potentially eligible for programs such as flood resilient retrofit, house raising or voluntary purchase. However council would need to investigate each house if these options were to proceed. For example, a similar voluntary purchase program in Brisbane identified 525 houses that met eligibility criteria but only 55 were purchased.

---

## CONNECTION WITH OTHER IICP CHAPTERS

---

### Physical Mitigation

A large number of the houses potentially eligible for voluntary purchase or retrofit and house raising are also included in the investigations for large-scale flood mitigation options. It's important that there is coordination between the two chapters so council decision-making considers all options.

### Community Awareness and Resilience

Ipswich suburbs have been prioritised based on social vulnerability factors and their exposure to flood risk factors. Communication and engagement strategies will be developed to increase community awareness and resilience in these priority suburbs. Information such as actions people can take on their properties, or any future council property specific programs, could be included in these strategies.

### Emergency Management

Flood responses such as evacuation are also being considered, using a similar prioritisation approach as that used to identify houses potentially eligible for property specific actions. This chapter will particularly be important for any areas that cannot reduce their flood risk either through large-scale mitigation options or property specific actions.



Beauty in Ipswich by D Isaacs  
Ipswich Enviroplan Photo Comp

---

## BE INVOLVED

---

Submissions on this and other IICP chapters can be made on the 'Managing Future Floods' page of Shape Your Ipswich.

The final Ipswich Integrated Catchment Plan report will be provided to Ipswich City Council Q4 2020 for consideration.

---

## WHAT ARE PROPERTY SPECIFIC ACTIONS?

---

Ipswich houses that are most at risk of hazardous floodwater may benefit from a range of property specific actions. These are different actions that can help reduce the impact of flood on the property and the occupants.

### Flood resilient retrofit

There are many ways homeowners can adapt building design, construction and materials so their property can withstand substantial, and multiple, inundations with floodwater.

A good flood resilient design can allow occupants to safely store belongings before a flood and easily clean, repair and move back into their house.

Simple measures can include 'wet proofing'. This is design that allows floodwater to enter and leave a property quickly and without significant damage.

The Flood Resilient Building Guidelines for Queensland Homes provides innovative, practical and affordable solutions for adapting homes to be flood resilient.

Some examples of flood resilient actions for houses include:

- raising powerpoints
- raising external services such as the electrical meter board and air conditioner condensers
- installing removeable cabinetry
- corrosion-resistant door handles
- cleaning blocked weep holes or adding more, for water to escape
- replacing hollow core doors with solid core or aluminium/glass doors.

Some examples of flood resilient landscaping actions include:

- fences that allow flood water to pass through
- pavement materials that let water soak through to the ground
- yard-based drainage systems such as dry ponds or spoon drains
- rain tanks (which may need to be anchored)
- strategically placed yard levels to divert water from the house.



Evening Light on Brisbane River by F Martin  
Ipswich Enviroplan Photo Comp



### Voluntary house raising

The cost of raising a home is generally greater than the cost of a resilient build. However, by raising a house it is possible to reduce the likelihood that the house will be inundated by floodwater.

However it is still important for occupants to be aware and prepared for flood as rarer, larger flood events may still be able to inundate raised houses.

House raising applies to homes that are either low or highset timber houses. It is not practical to raise houses that were built as slab on ground. It is important to check council requirements if considering house raising or restumping work in Ipswich.

- **House raising by use of stumps**

Raising older houses to achieve a higher flood immunity can be a good solution to reducing potential flood risks. However there are also council requirements around raising and building under Queenslander houses that need to be considered.

- **Replacing stumps to be more flood resilient**

Older constructions typically used wooden stumps as foundation for a Queenslander-style house. Replacing these wooden stumps with more resilient materials can provide added benefits. However it is important to check with council about whether restrictions apply, such as a requirement for the use of timber posts to retain character.

### Voluntary house purchase

This can also be known as a 'property buy-back' scheme. While some programs include compulsory acquisition, Ipswich City Council has only considered voluntary house purchase arrangements for this Chapter. Should a program be funded, it would mean property owners would need to agree to selling their house to council for this to be an option.

Generally, house purchase programs are costly to implement and must be balanced against community needs across council's entire budget. These programs are usually reserved for situations where properties are not suitable for other actions to reduce flood risk. Once purchased, councils may choose to remove the house and convert the property to open space.

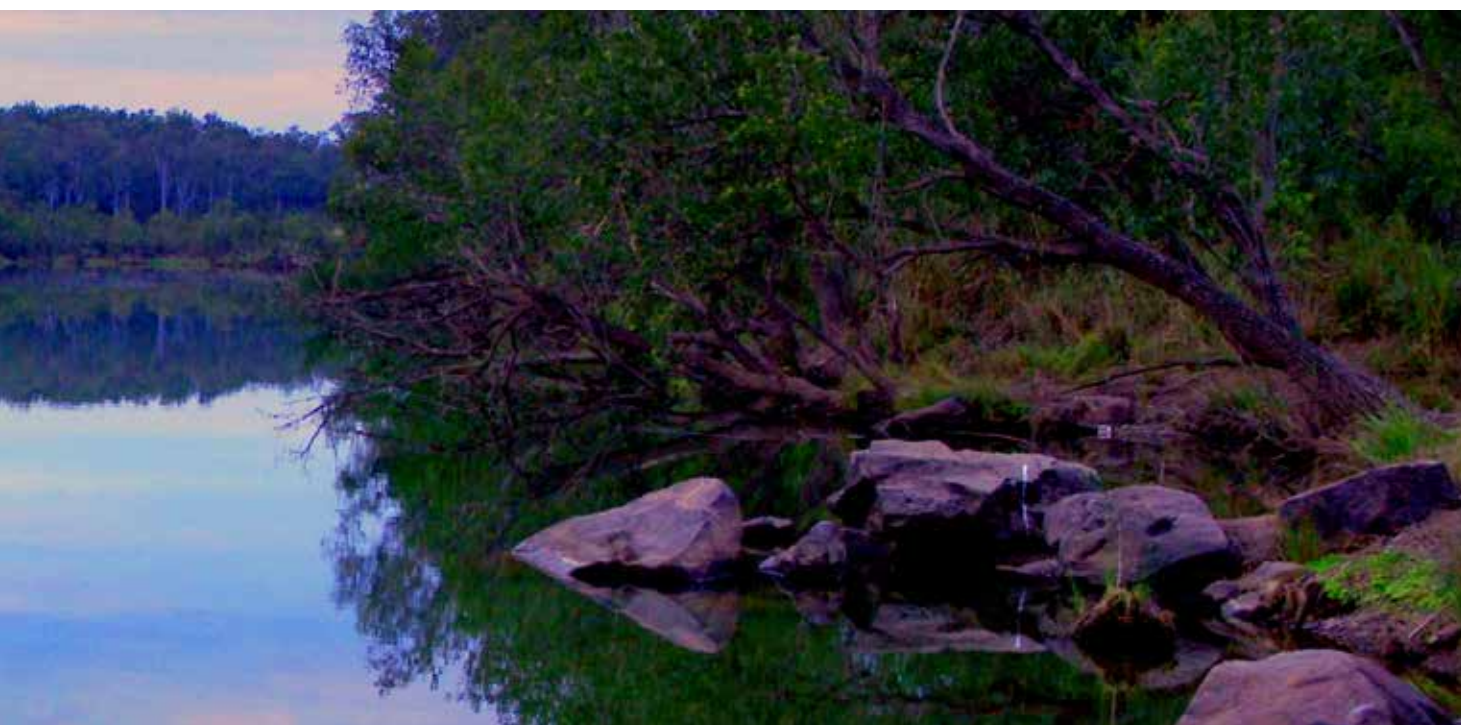
---

## WHAT HAPPENS NEXT

---

It would ultimately be up to homeowners to act on measures to increase their property's resilience to flood, such as retrofitting with flood resilient building materials. Any property purchase would also be the voluntary choice of the homeowner.

The Ipswich Integrated Catchment Plan final report will provide an example program of works for council to consider and make recommendations as to how council can coordinate and facilitate the process with property owners.











Ipswich City Council  
PO Box 191, Ipswich QLD 4305, Australia

Phone (07) 3810 6666  
[council@ipswich.qld.gov.au](mailto:council@ipswich.qld.gov.au)  
[ipswich.qld.gov.au](http://ipswich.qld.gov.au)

---

**Join us online:**

-  [/IpswichCityCouncil](#)
-  [/IpswichCouncil](#)
-  [/ipswich-city-council](#)
-  [/IpswichCityCouncilTV](#)