



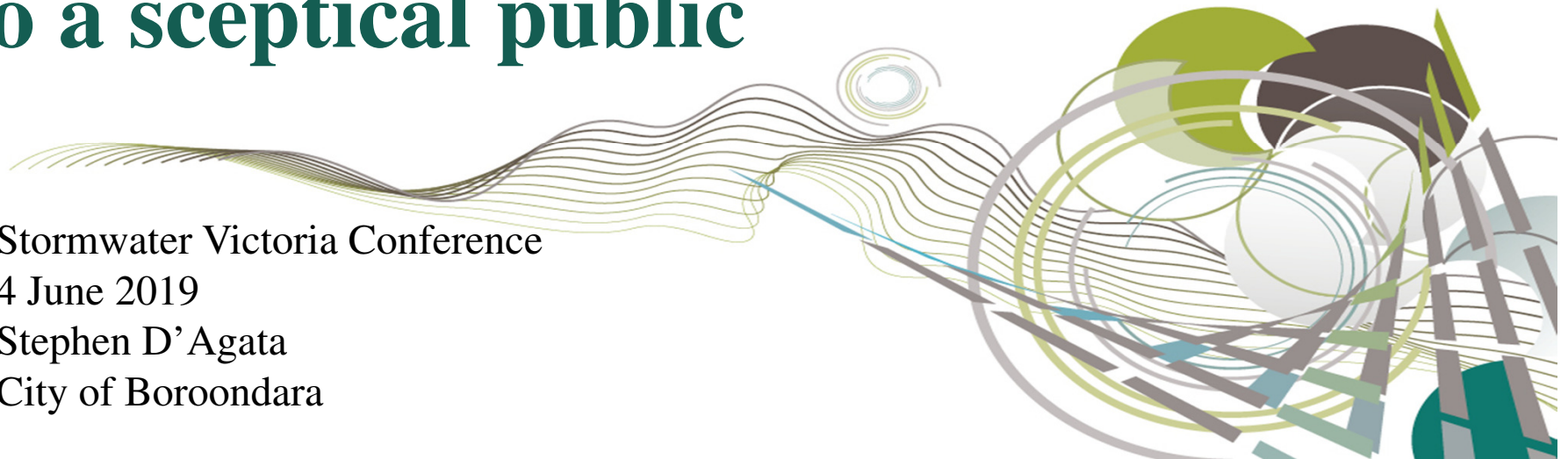
# Selling the benefits of flood mapping to a sceptical public

Stormwater Victoria Conference

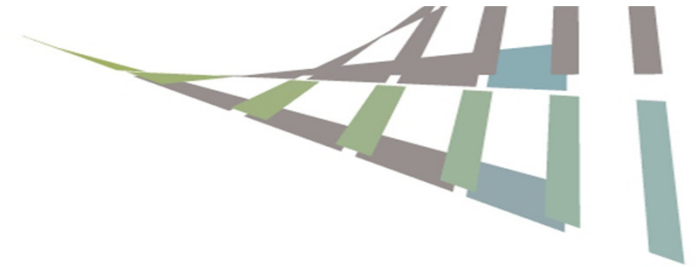
4 June 2019

Stephen D'Agata

City of Boroondara



# Background



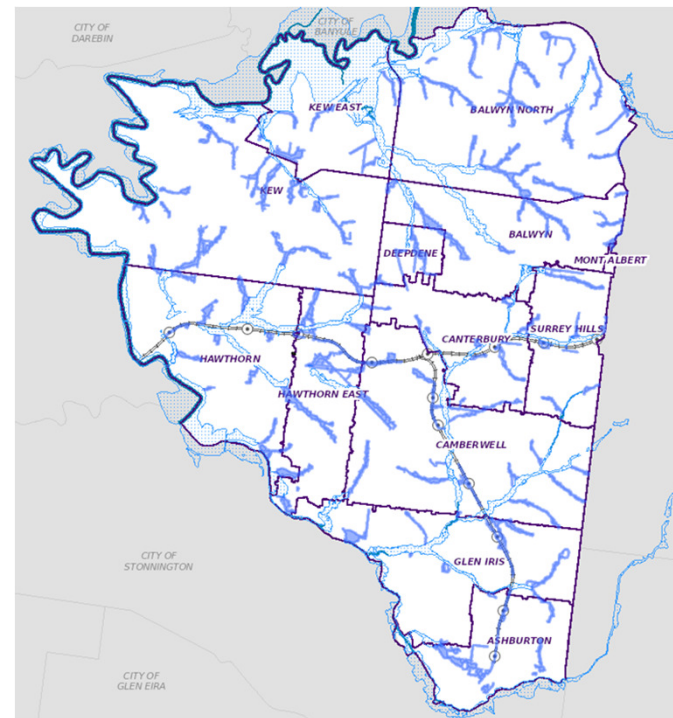
- **City of Boroondara Flood Mapping Study initiated in 2016;**
- **First comprehensive assessment of flood risk ever prepared for municipality;**
- **Council had not previously managed flood risk;**
- **Management and councillors did not fully understand the consequences of study.**

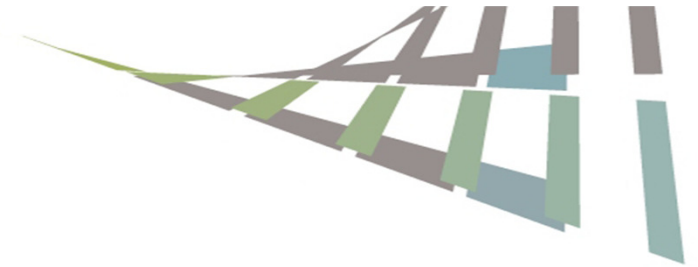


*Once you have a industry best practice assessment of  
flood risk...*

*You must tell people about it*

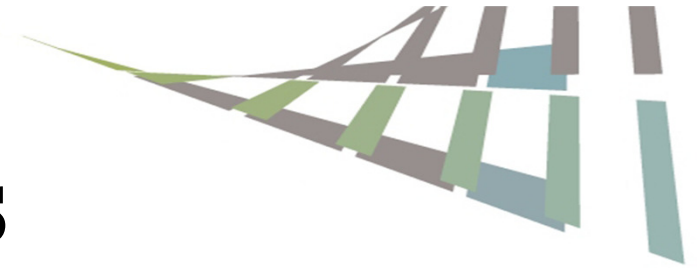
# Flood risk – Before and After





# Consultation Process

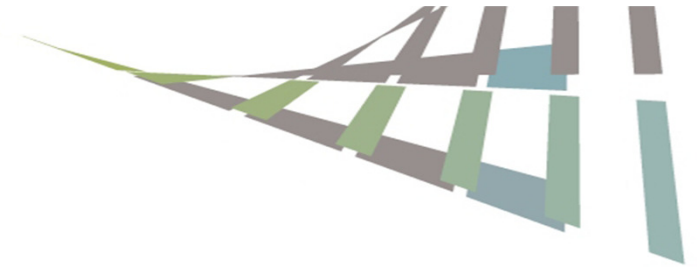
- Briefed Council on study and consultation plan;
- Wrote to all affected property owners before study was completed;
- Employed additional resources to respond to feedback;
- Provided many and varied means for customers to obtain information;
- But **NO** town hall debates.



# Consultation Outcomes

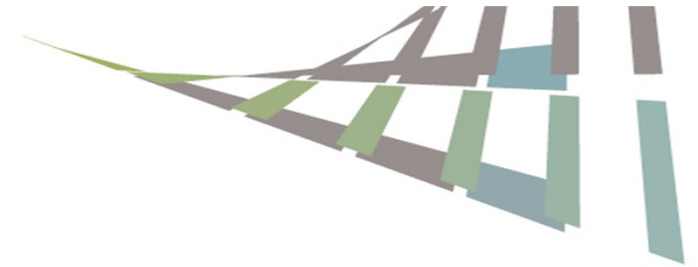
- **Information from customers changed model results;**
- **Approval progressed through Council;**
- **Customers informed at each step;**
- **Customers invited to address Council with their concerns.**

# Progress to date



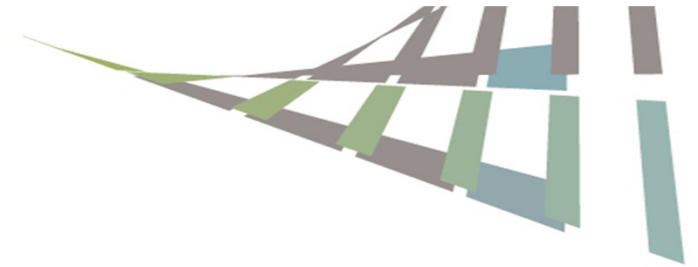
- **Council has agreed to make a decision on adopting the study;**
- **Adopting the study will result in properties being designated under building regulations;**
- **Planning scheme amendment process should commence late 2019**

# What did we learn from consultation.



- Flood mapping is the easy part;
- It's convincing the public that's hard;
- The **'F'** word conjures images of deep water not shallow flows;
- The public finds it hard to comprehend.





# Examples of public response

Thanks for  
devaluing my  
property



I've lived here for  
40 years and have  
never been flooded!



Yes I know it floods.  
But do you have to  
tell everyone!



You're punishing  
us instead of fixing  
your drains



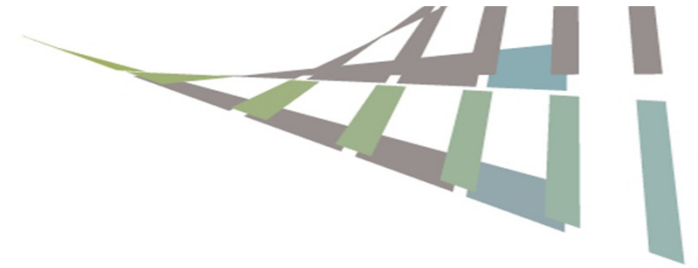
It floods because  
you don't maintain  
your drains properly



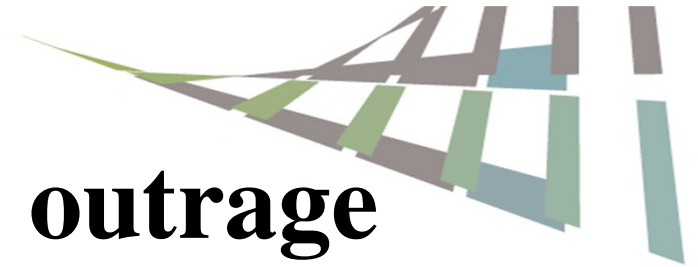
Your study is  
hypothetical. There is  
no real problem



# Do they have a point?



- **Yes – their concerns are real;**
- **We see risk management;**
- **They see dereliction of duty;**
- **Forecast flows can be imperceptible;**
- **Flooding conjures images of deep water not relatively shallow overland flows.**



# So how do we manage the outrage

- Understand that what you are doing will hurt people;
- Start consultation as early as possible;
- Record interactions and correspondence;
- Welcome input, concerns and information;
- Genuinely acknowledge and address concerns;
- Have counter arguments ready but don't be too defensive;
- Provide individual assessments but don't compromise methodology.

## Public reality

Thanks for  
devaluing my  
property



- Majority of personal wealth is tied up in the family home;
- Data that shows little effect on value is counter intuitive;
- Feel tricked and cheated;
- Their investment has been tainted;



## Counter argument

- Flood mapping identifies a risk that always existed;
- Loss of value is not a reason for not managing flood risk;
- Designation does not change what you can do to a property just how you go about it;
- Flood mapping (mostly) has no impact unless new buildings and works are proposed;





I've lived here for  
40 years and have  
never been flooded!

## Public reality

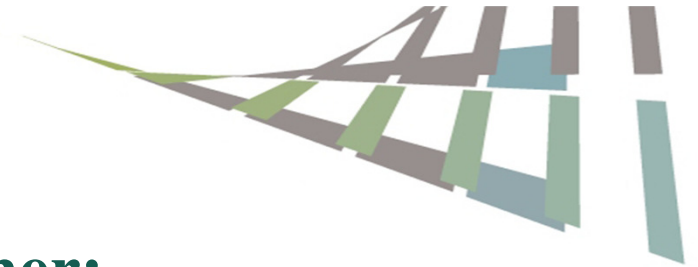
- **We have never flooded;**
- **The assessment is wrong;**
- **Physically can't happen;**
- **If it had happened, I would have noticed.**





## Counter argument

- Agree to investigate further;
- We are not talking about knee deep water;
- Shallow flow can go un-noticed during extreme rainfall;
- Flood designation is for the property not just the dwelling;
- The mapping represents a worst case scenario;





Yes I know it floods.  
But do you have to  
tell everyone!

## Public reality

- **Element of shame in having made a bad purchase;**
- **The consequence of designation outweighs the flood risk;**
- **Council should be able to manage the situation when development occurs**



## Counter argument

- Council does not issue most building permits;
- Council will be negligent by not openly addressing the risk;
- Flood risk needs to be identified early on in the design process;

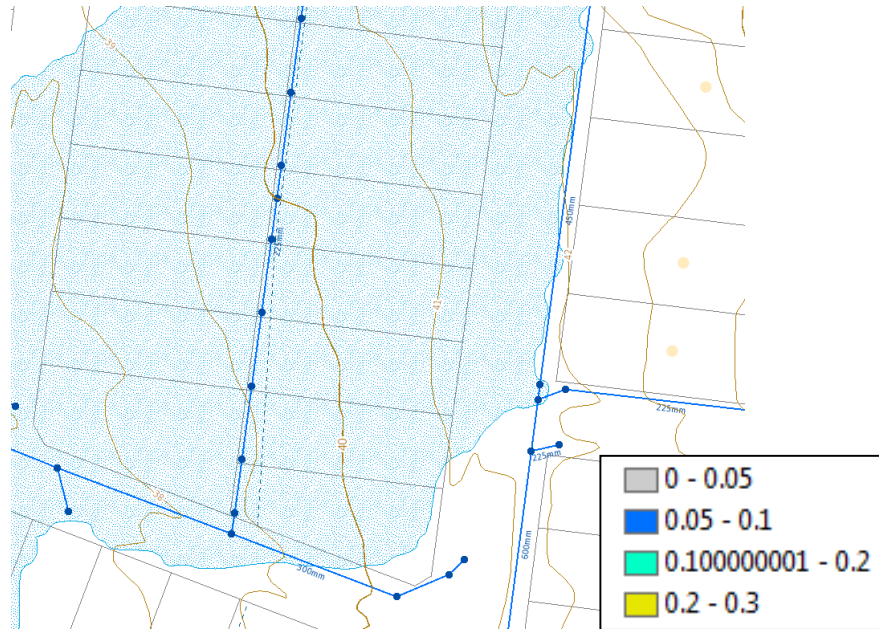




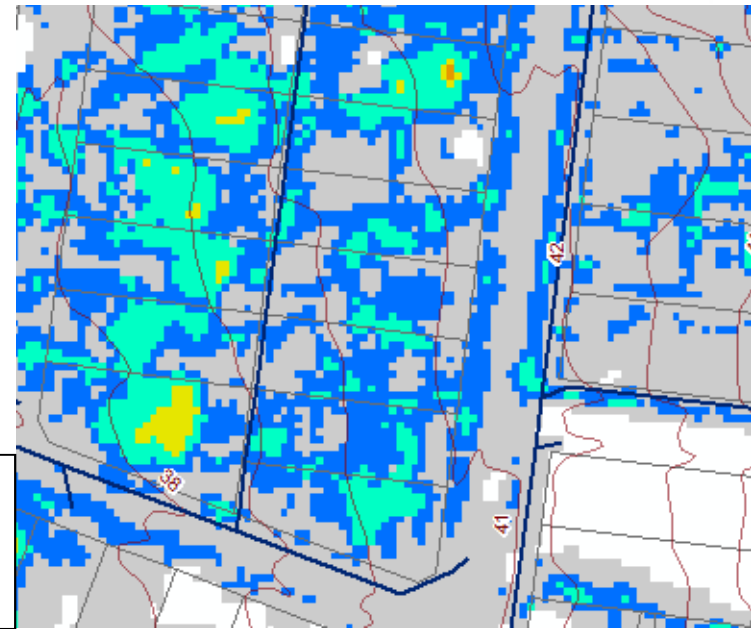
# Case Study

# Importance of designating minor flood risk

## Flood extent



## Raw flood mapping data



# Shallow flow can have significant impact

Original dwelling allows for water to flow around building



New dwelling directs water into building





# Back to the examples



## Public reality

- Council taking the easy way out;
- Designating to avoid fixing problems;
- Shirking responsibility;
- Shifting the blame.





## Counter argument

- **Old subdivisions did not allow for overland flow;**
- **Rectangular allotments placed over undulating terrain;**
- **No expectation for Council to contain 1% AEP;**
- **Designation allows for the risk to be managed;**
- **Resources are directed to ensuring system contains frequent rainfall;**

It floods because  
you don't maintain  
your drains properly



## Public reality

- Pits look blocked when it floods;
- Nothing is done unless someone complains;
- Always leaves and debris around pits.

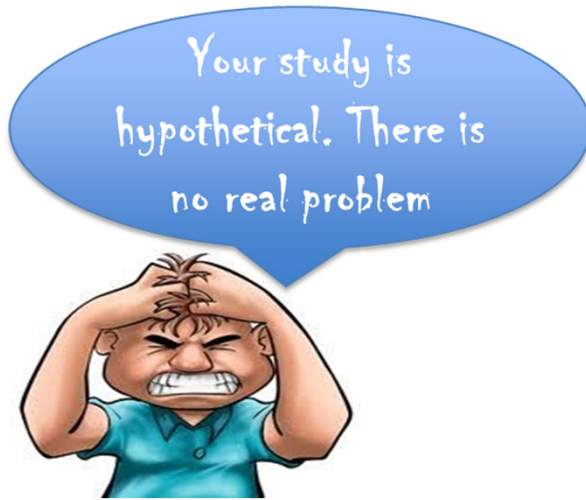


It floods because  
you don't maintain  
your drains properly



## Counter argument

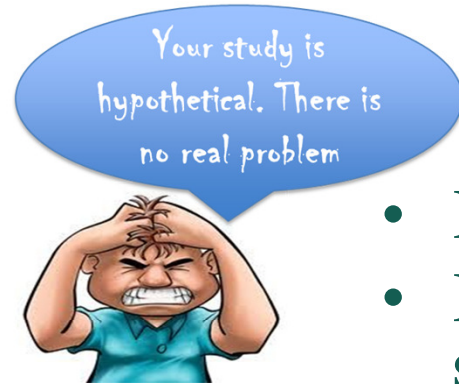
- Flood waters will always carry additional debris;
- Flood mapping allows for some pit blockage;
- More severe blockage would make flooding worse than forecast;
- Offer to include specific pits in scheduled cleaning program;



## Public reality

- **Physical obstructions not considered;**
- **Designation should be based on flood history;**
- **Data does not accurately represent ground conditions**





## Counter argument

- **Built form is not permanent;**
- **Modelling represents where flow paths should be;**
- **Council is negligent if we wait for risks to be realised before designating;**
- **Flood extent is a trigger for detailed investigation;**
- **Detailed assessment is conducted when works are proposed.**

## Moral of the story....

- **Have real world examples of why designation is important;**
- **Be open to customer experience;**
- **Information from residents is useful to debunk results;**
- **Be genuine about reviewing results but don't provide false hope;**

## **Moral of the story....**

- **Changes must be supported by the methodology;**
- **Keep good records of consultation;**
- **Make yourself available to meet on site and discuss concerns;**
- **Get everyone in your team on script.**

# Conclusions:

- **Flood mapping remains a thankless task;**
- **Need to consult early and consult often;**
- **Anticipate the outrage;**
- **Be honest and genuine;**
- **Accept that you won't win everyone over.**



Any  
questions!

