

# Freeboard Model

To Inform Stormwater Management Plans

Ting Kuy – FME Roadshow, Wellington, 2024

# The Problem

100's of new houses



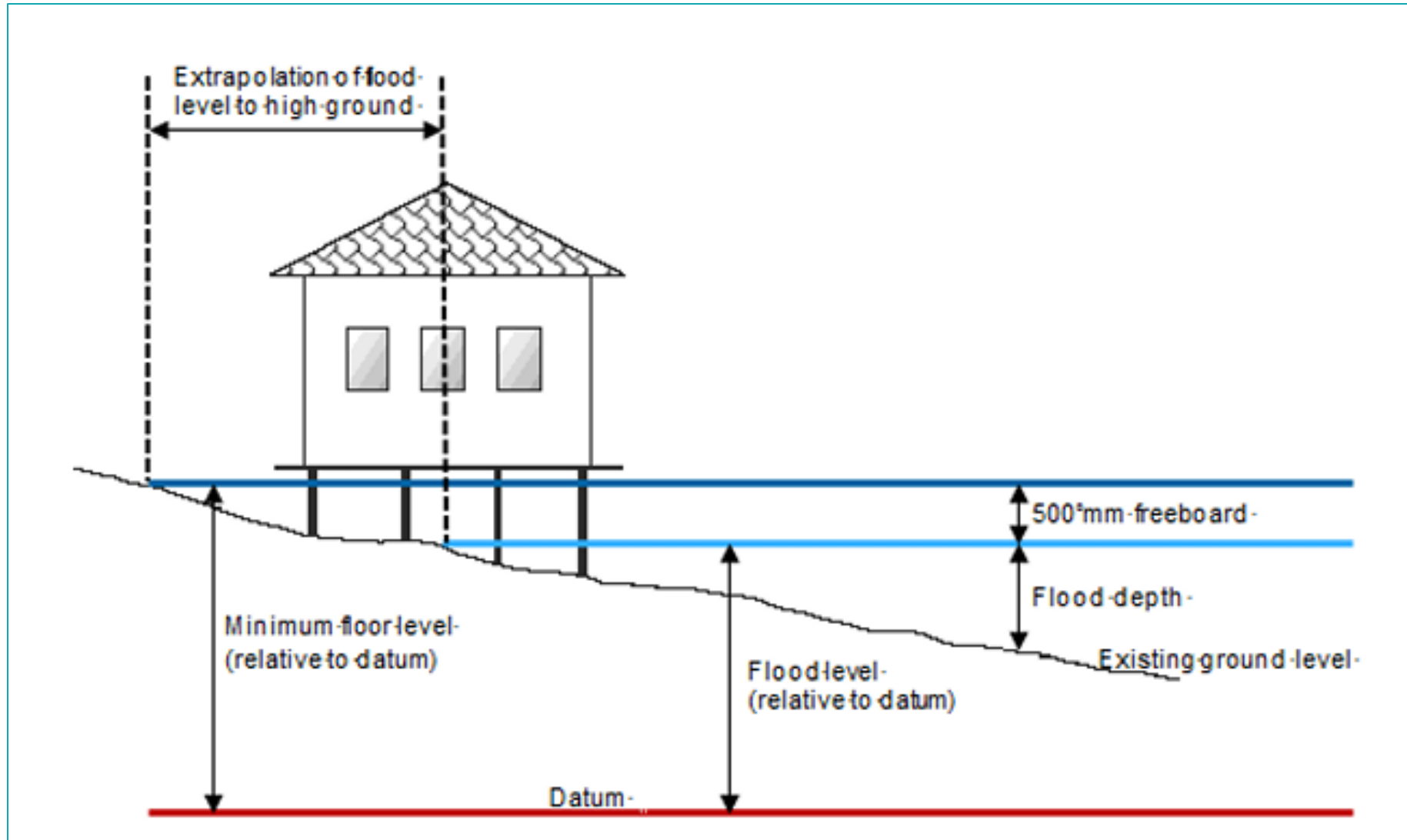
Upgraded infrastructure and stormwater management plan



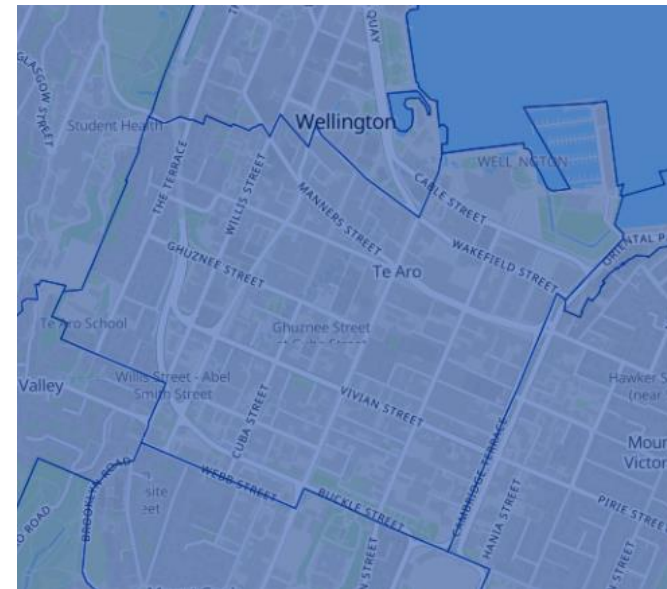
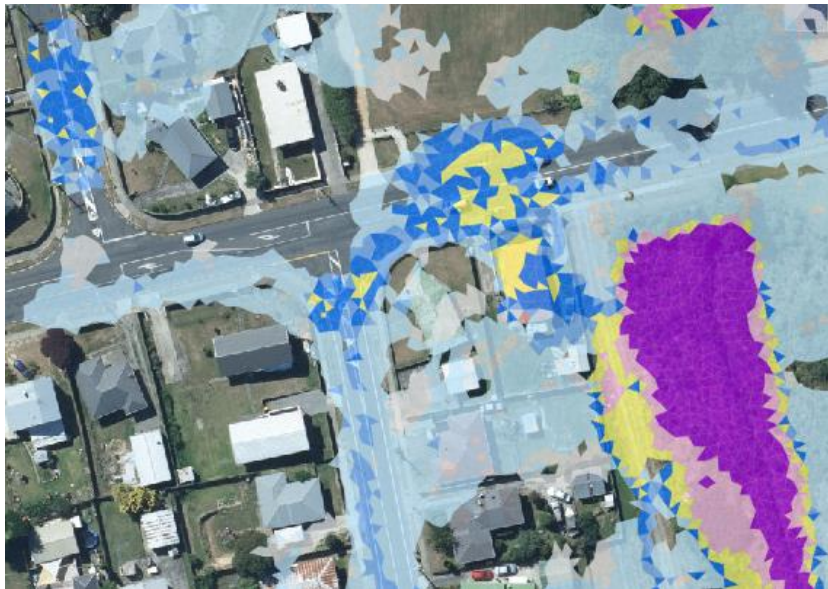
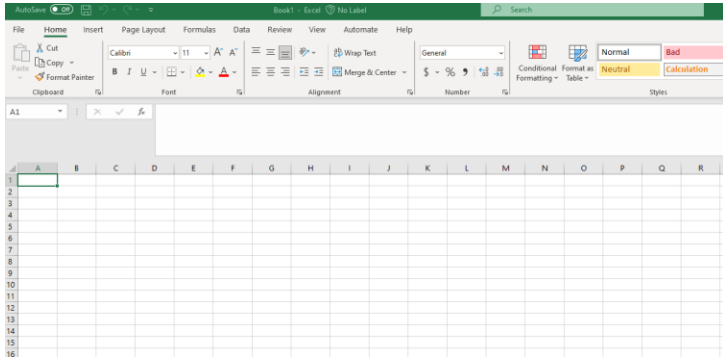
Impact of stormwater and flooding



# What is Freeboard?

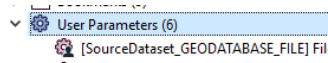


# The Input Data

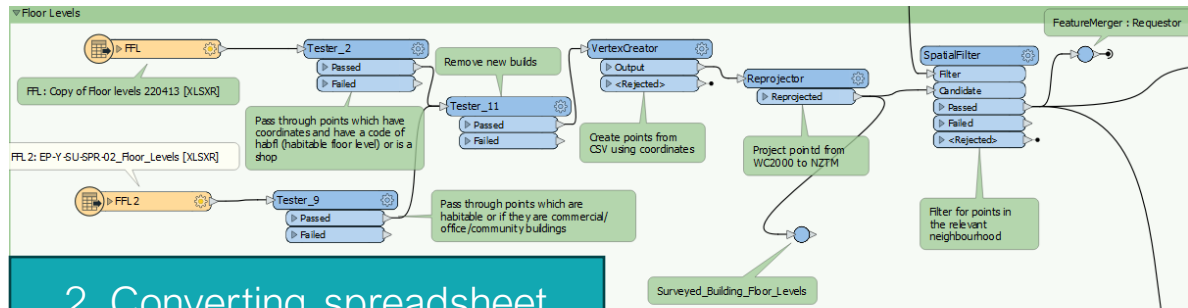


# FME Process – Floor Levels

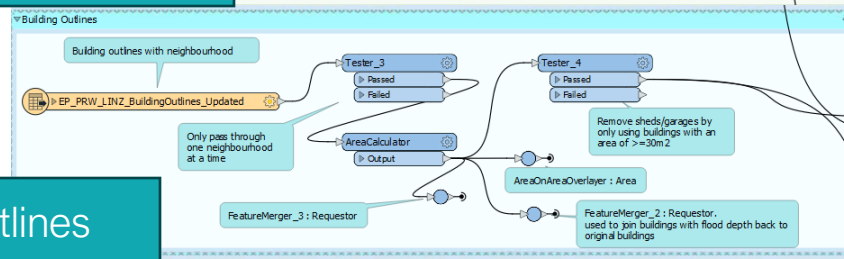
## 1. Neighbourhood Parameter



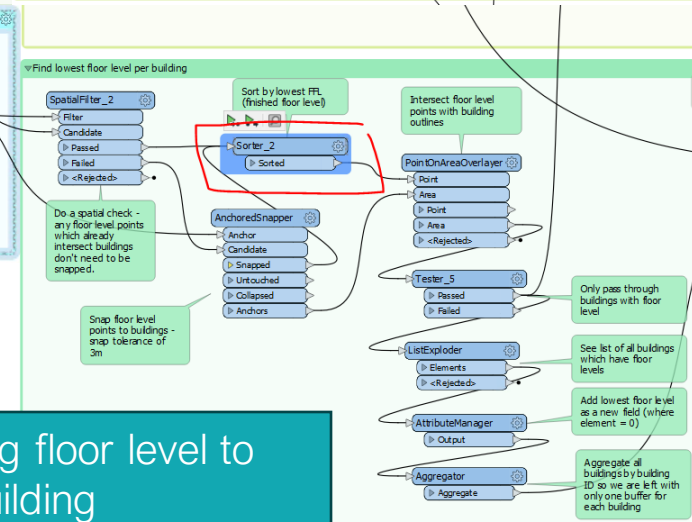
## 2. Converting spreadsheet



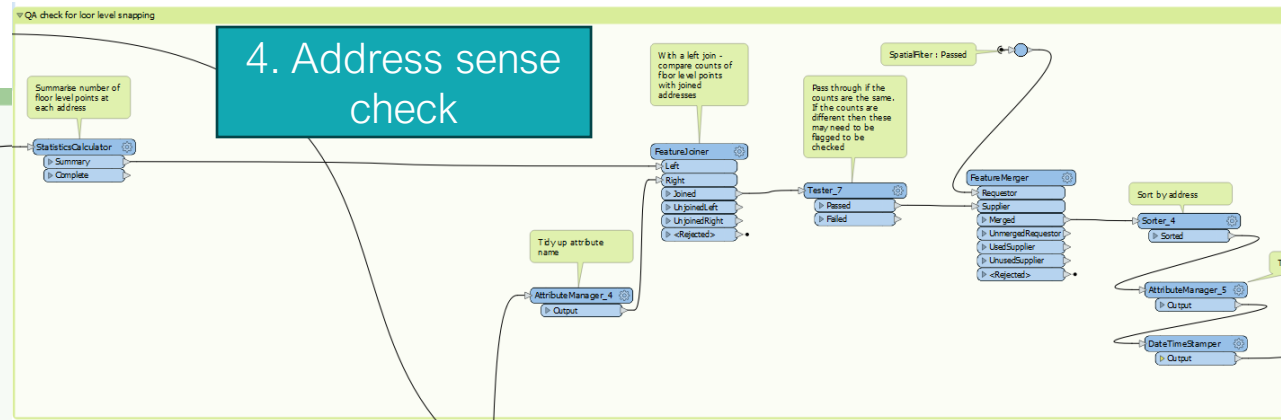
## Building outlines



## 3. Snapping floor level to building

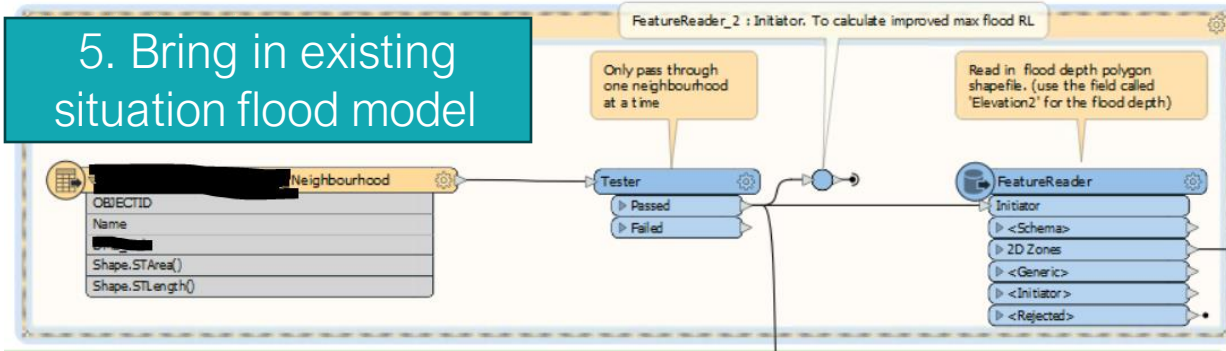


## 4. Address sense check

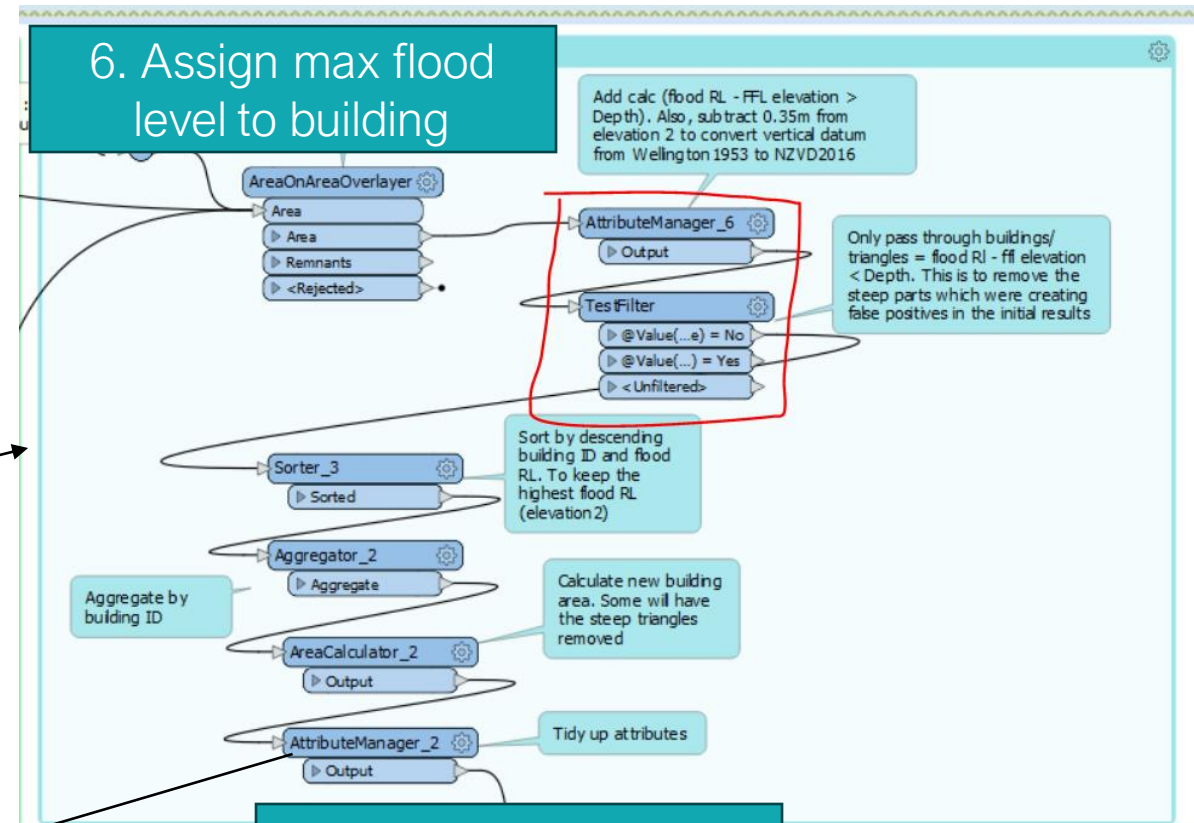


# FME Process – Flood Models and Freeboard

## 5. Bring in existing situation flood model



## 6. Assign max flood level to building

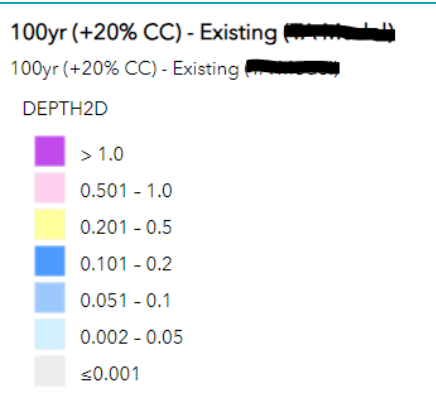
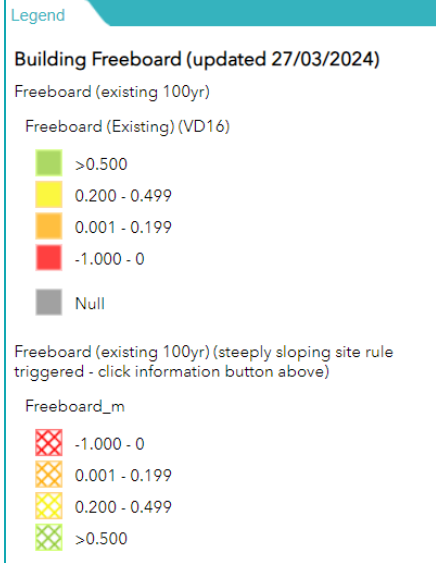
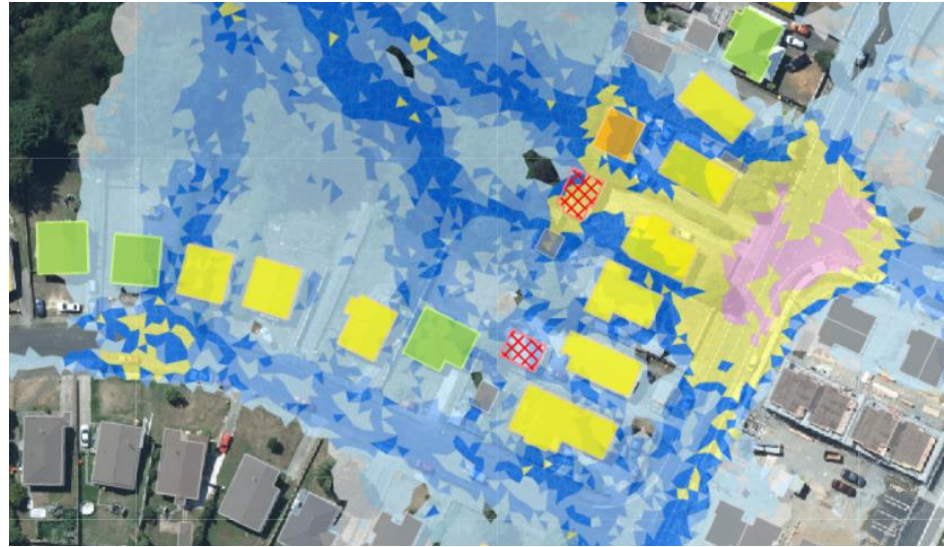


## 7. Freeboard calculation

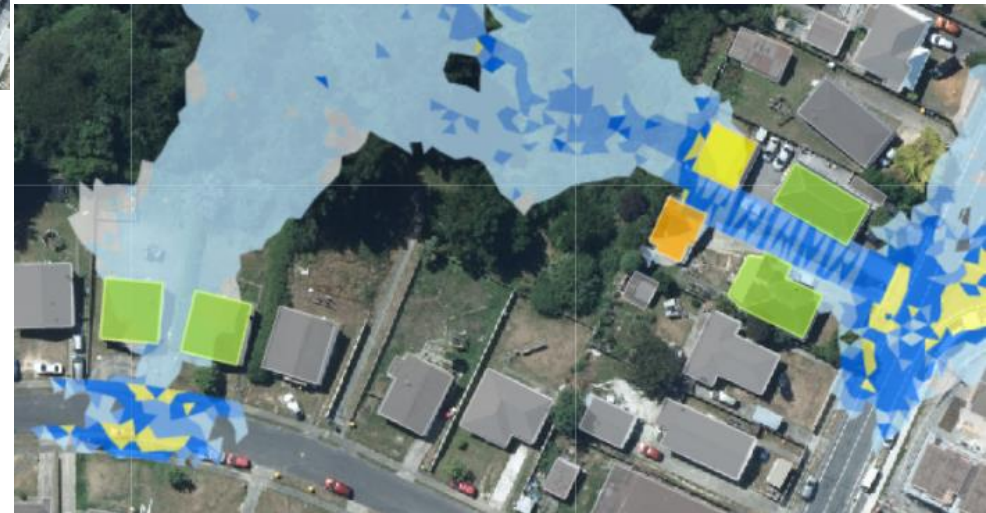
| Parameter Condition Definition   |  |
|--|--|
| Condition Statement  |  |
| Test Condition   | Attribute Value  |
| If Lowest Floor Level ATTRIBUTE_HAS_A_VALUE AND Max Flood RL ATTRIBUTE_HAS_A_VALUE | <input type="checkbox"/> @round(@sub(@Value(Lowest Floor Level),@Value(Max Flood RL)),4) |
| Else If  |  |
| Else <All Other Conditions>  | <input checked="" type="checkbox"/> <No Action>  |

# Outcomes

Existing infrastructure



Future with upgrades



# Questions