

# **Future Assets Forum VASP Project Briefing Report**

**Eastern Alliance for Greenhouse Action**

**Northern Alliance for Greenhouse Action**

**December 2015**



# Future Assets Forum Workshop 1

Dr Gerard Healey and Aaron Yuen

22<sup>nd</sup> October 2015

# Activity 1: What have we as councils done well in the past?

- We manage water infrastructure well, have already responded to climate change impacts, such as addressing storm water system capacity, or implementing WSUDs
- We focus on thermal performance (rather than adaptation), but there are opportunities to reduce climate risk
- Swimming pools are now used as heat-wave refuges, and we need to consider this

# Activity 1: Workshop expectations

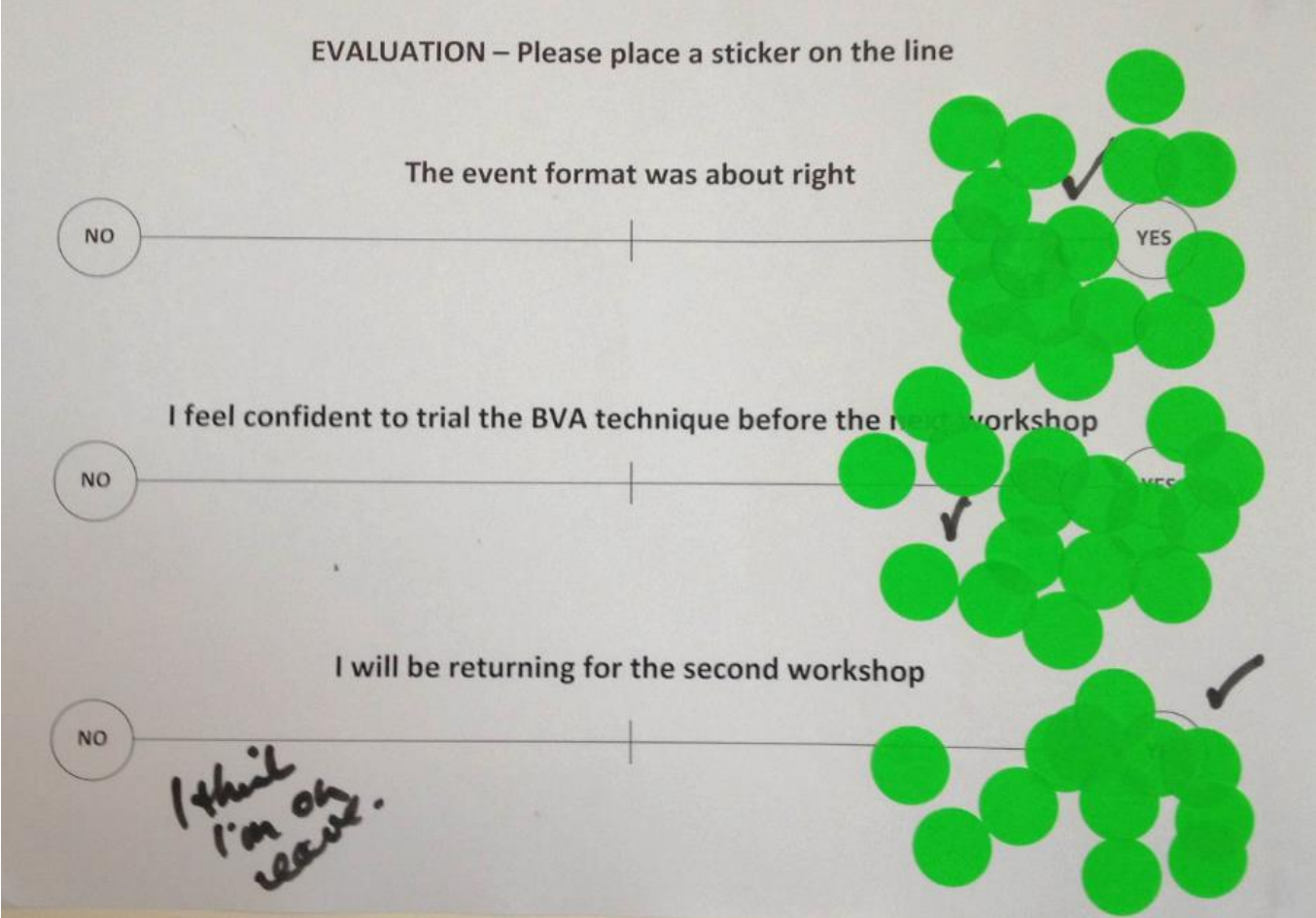
We want to understand:

- How to manage during a brown-out event? We often focus on managing people and changing behaviours, rather than the building.
- Can we address the urban heat island effect?
- How to have the conversation between sustainability and asset management teams; this might give us relatable language?
- A checkbox-based prioritisation and assessment process.
- How to prioritise buildings for adaptation?

# Feedback on Assessment Matrix

- Include a residual risk matrix – re-assess risk based on identified actions
- The process will benefit from condition assessments (good information) on existing buildings
- Prioritisation needs:
  - Understanding legal risks
  - Weighing up financial cost and health or sustainability risks
  - How to prioritise capital expenditure: focus on renewal of buildings or fixing non-compliance?
  - Weighing up the difference between whole building changes vs. operation/maintenance changes
  - Use it to address (change) council standards or design guidelines
  - How do we consider overlays (located in a bushfire or flooding zone)?

# Session 1 – Feedback Survey





# Future Assets Forum Workshop 2

Dr Gerard Healey and Aaron Yuen  
18<sup>th</sup> November 2015

# Activity 1: Feedback on the BVA methodology and associated tool

**Participant feedback in the form of discussion notes and SWOT analysis**



# Building Vulnerability Assessment Methodology Recap

1. Climate change will lead to impacts for the region:
  - Hotter average temperatures
  - Increased and longer bushfire seasons
  - More extreme rainfall events and flooding risk
  - Hotter extreme temperatures (heatwaves)
2. Councils own a large portfolio of buildings, and these could be vulnerable to future impacts
3. What is an approach to assess the vulnerability of a building to climate change impacts?

# General feedback throughout workshop 2 discussion

## 1. Regarding methodology application for new buildings

- Could the assessment be done on new designs?
- There is potential to integrate Whitehorse's project data, which includes a checklist of 'design for future climate' as part of new project briefs
- ESD is generally incorporated into buildings as business-as-usual, there is an opportunity to integrate building vulnerability and resilience into policies

# General feedback through discussion

## **2. Regarding building components as part of the assessment, and what the common agreed actions that should be considered:**

- Weather proofing is important
- Try to avoid box gutters in refurbishment and new builds
- Few Council buildings have back-up power, and this has been commonly identified as a risk for emergency relief centre buildings

# General feedback through discussion

## 3. Regarding streamlining the methodology process

- Find ways to make the framework complimentary to existing Council asset management process
- There are a lot of high risks identified by the methodology, so there is a recognition that the outcomes and risks need to be calibrated and interpreted by the user
- Start with understanding which buildings have history of cracking (or major existing issues)
- Identify a targeted approach to applying framework (helpful to be able to get a quick snapshot), refer to City of Whitehorse approach
- Automate data entry for repetitive information (e.g. soil types)
- Find alignments with standard council asset reviews undertaken by contractors

# General feedback through discussion

## 4. Other important considerations and feedback

- It is important to include maintenance staff in design process
- Recognise existing management controls
- The tool useful in supporting robust prioritisation of projects, it can act as a prompt to gather information about existing processes

## Strengths

- **Future asset planning (5)**
- Collects data and keeps records (1)
- If done well, less costs in the future (1)

## Weaknesses

- Being additional work (2)
- Resourcing and budget (2)
- Repetitive (1)
- Tool/process needs to be powerful enough to argue for expenditure (1)

## Opportunities

- **Integration with other assessments / or asset management frameworks or existing processes (8)**
- Return on investment analysis (3)
- Streamlining the process (2)
- Checklists and cheat sheets (1)
- Electronic tool (1)

## Threats

- **Getting funding from council (5)**
- Costs of actions leads to no implementation (3)
- Failure to integrate into processes (1)

## Strengths

- **Ability to assist in future asset planning (5)**
- Collects data and keeps records (1)
- If done well, less costs in the future (1)
- Comprehensive assessment assists in making informed decisions and to pre-empt questions asked by the community
- Prioritises and identifies costs to help to justify spending
- Risk management process
- Easy and quick to use
- Adaptable to uses across different sectors (emergency management, planning etc.)
- Highlights weaknesses in buildings
- Identifies potential positive improvements
- Need to be able to carry out as an Asset Manager

## Opportunities

- **Integration with other assessments / or asset management frameworks or existing processes (8)**
- Return on investment analysis/economic opportunities (3)
- Streamlining the process (for example, potential to become electronic) (3)
- Checklists and cheat sheets for alignment with existing framework (1)
- Collaboration with other internal departments
- Improved future design outcomes, particularly if maintenance crew involved in the design stage
- Connection with the community
- Improved and defined asset register
- Tailoring to specific Councils

## Weaknesses

- Being perceived as additional work (2)
- Resourcing and budget (2)
- Repetitive and generic (2)
- Tool/process needs to be powerful enough to argue for expenditure (1)
- Number of buildings to identify
- Existing asset risks
- Some data (such as soil) hard to know
- Changing uses of buildings is hard to measure
- Stand-alone tool
- Access to areas for assessment can be an issue
- Orientation of walls means it always becomes high

## Threats

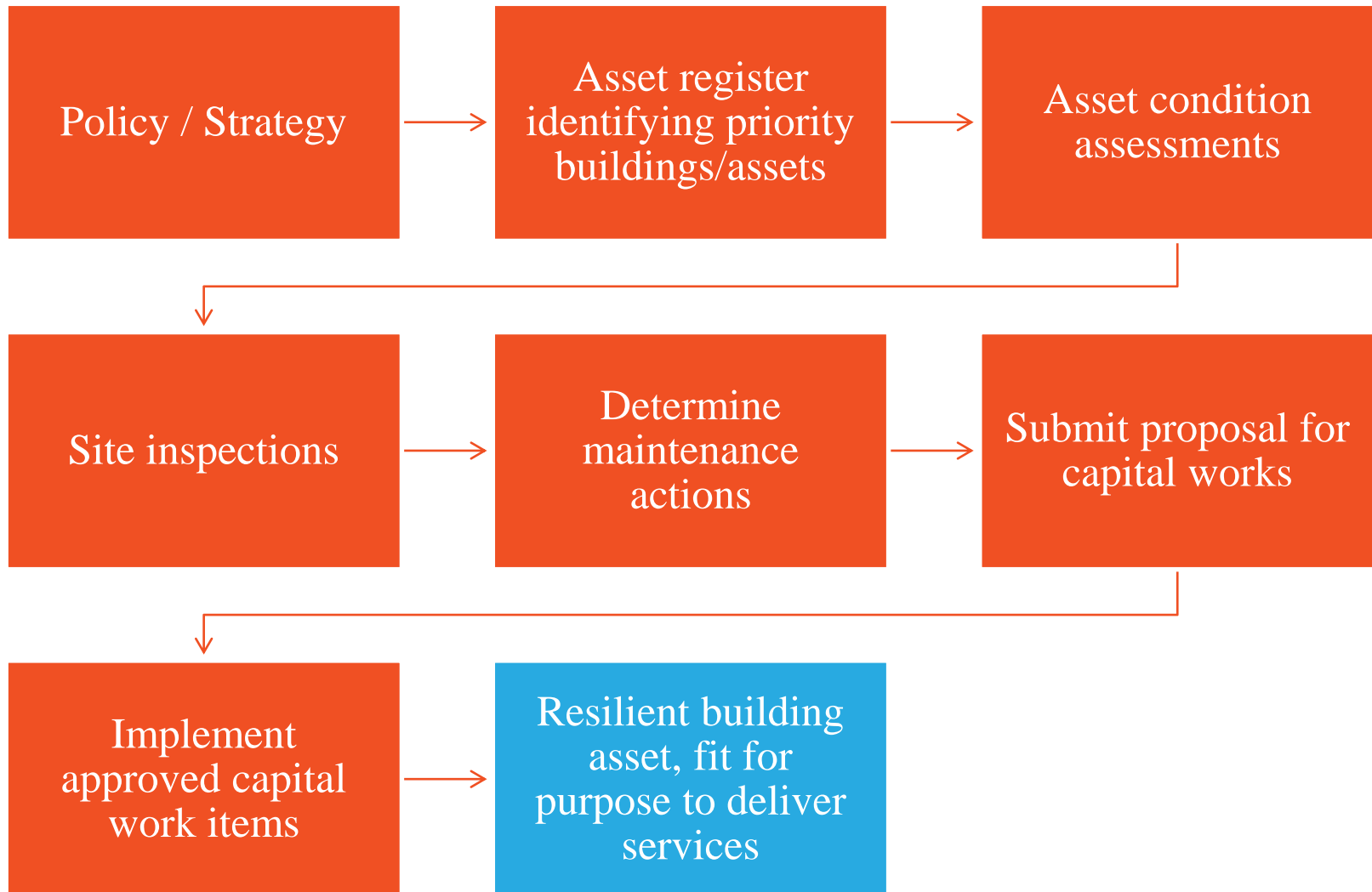
- **Getting funding from council to conduct an audit and implement recommendations (5)**
- Costs of actions leads to no implementation (3)
- Failure to integrate into processes (1)
- Timeframe
- Education of designers or contractors
- Prioritise works for rate capping
- Funding competition (for example: Cheaper options prevail, despite not being best options)
- Focus on environment and lack of focus on corporate
- End user has different priorities
- Cheaper options prevail, despite not being best options
- Shifting risk issues through 'Adaptive Responses'
- Perception as being complex and 'another thing to do'

# Activity 3: Embedding the BVA assessment into council

**Participant feedback as ideas to integrate or embed climate change adaptation into council**



# What would it take to have this assessment approach embedded into council?



# Ideas to embed the approach into council

Ideas highlighted in **green** were common across councils

| Council Processes           | Action ideas for integration  |
|-----------------------------|---|
| Strategy                    | <ul style="list-style-type: none"><li>● <b>Integrated climate change adaptation needs or BVA methodology into revised asset management strategy</b> (to be revised next year)</li><li>● Develop council Climate Change Adaptation Plan or Strategy, and include building vulnerability assessment into plan</li></ul> |
| Policy                      | <ul style="list-style-type: none"><li>● Integrate adaptation consideration into existing buildings policy</li><li>● Integrate adaptation consideration into existing ESD policy</li></ul>   |
| Asset condition assessments | <ul style="list-style-type: none"><li>● <b>Create ‘building vulnerability’ or ‘adaptation’ checklist</b> for new and existing buildings</li></ul>   |
| Site inspections            | <ul style="list-style-type: none"><li>● Recognising that council can adopt any form of assessments for assets, as part of condition assessments, integrate BVA into process</li></ul>   |
| Other                       | <ul style="list-style-type: none"><li>● <b>Facilitate staff training and awareness</b> (through workshops, informal discussions or specific training on use of the BVA)</li></ul>   |

# Future Assets Forum Statistics

# Snapshot of statistics

- **14** councils attended
- **28** council staff attended at least one session
  - **6** staff attended both sessions
- **7** follow-up phone calls undertaken
- At least **6** buildings piloted the BVA methodology
  - **3** case-study presentations produced

# Participant List (across both sessions)

| First Name | Last Name      | Email                                   | Council       | First session | Second session |
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| Rohan      | Prathapasinghe | rohan.p@whitehorse.vic.gov.au           | Whitehorse    |               | 1              |
| Tim        | Curtis         | tim.curtis@whitehorse.vic.gov.au        | Whitehorse    | 1             |                |
| James      | Depasquale     | james.depasquale@whittlesea.vic.gov.au  | Whittlesea    | 1             | 1              |
| Jillian    | Bambach        | jillian.bambach@whittlesea.vic.gov.au   | Whittlesea    | 1             |                |
| Karen      | Cameron        | karen.cameron@yarracity.vic.gov.au      | Yarra City    | 1             |                |

# Future Assets Forum Arup recommendations

# Arup recommendations of next steps

Arup, upon review of the workshop and in consideration of feedback have suggested a range of actions that can be undertaken at a council or regional level, with a particular focus to help build resilience of building assets to future climate change impacts. Our recommendations are as follows:

## Regional-level (NAGA or EAGA)

- **Continue to share learnings from councils** – a number of councils found the direct feedback from City of Whitehorse valuable in understanding climate change impacts and adaptive responses in a building-sense. Certain asset managers were also eager to share learnings with other councils.
- **Continue to have a role in developing useful BVA tools for the region** – councils generally expressed a need for a more accessible version of the BVA, potentially in an online format. However, it is often difficult to justify investment in an online tool for one council only. A regional approach will provide benefits not only for an individual council, but for the region (and potentially event state-wide). It should be noted that councils such as East Gippsland Shire Council are also interested in the application of the BVA and its potential future iteration as a working tool.

# Arup recommendations of next steps

## Council-level

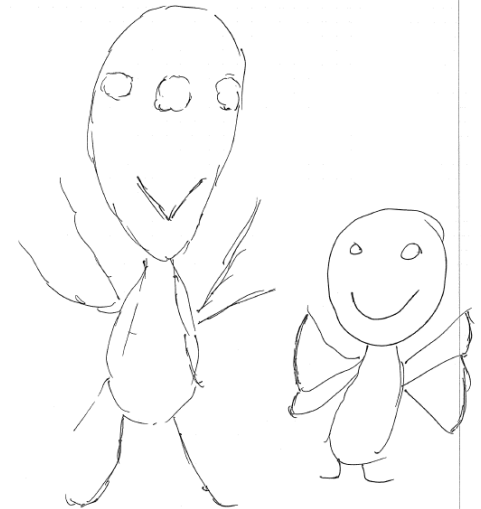
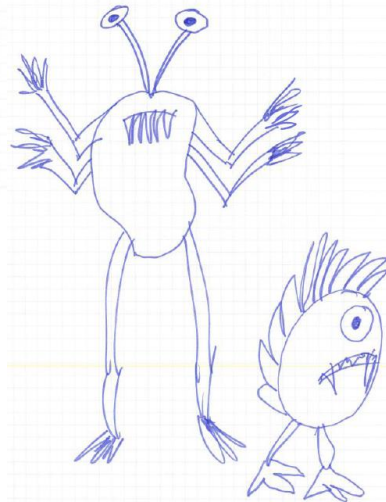
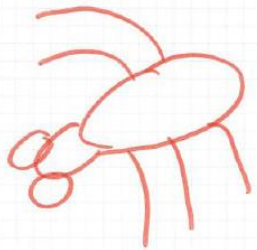
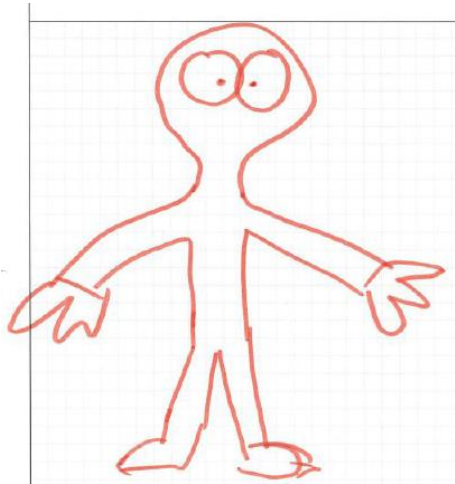
- **Pilot the BVA in 2016** – a number of councils have expressed a keenness to test and pilot the BVA as part of condition assessments or asset management processes within council. Councils with interest in piloting the BVA are Maroondah, Port Phillip, Yarra, Moreland and East Gippsland Shire Council (outside of NAGA and EAGA).  
The process of piloting the tool also strengthens relationships between sustainability and asset management teams within council.
- **Broaden the BVA tool to include infrastructure** – a number of councils saw applicability of the BVA approach to be translated to infrastructure impacts. A number of councils have asset management departments that focus both on buildings and infrastructure. Having a consolidated approach for asset condition assessments to consider climate change impacts would be beneficial.
- **Broaden the BVA tool to include coastal climate impacts** – within the region, the City of Port Phillip acknowledged that coastal impacts were not included in the original BVA method. Expanding the BVA to consider such risks will help broaden the applicability of the approach and tool for regional benefit.



# Appendix

**Ice-breaker activity outputs**

# If you could draw an alien...



***The lesson:*** all aliens have eyes and limbs and are symmetrical.

We tend to go back to what we are familiar with, but for innovation and new methods, we have to think beyond what is familiar.