



FINAL RECOMMENDATIONS REPORT

MONASH CITY COUNCIL

**EVALUATION OF ENVIRONMENTALLY
SUSTAINABLE DESIGN (ESD) IN COUNCIL
BUILDINGS & INFRASTRUCTURE**

23 June 2020



Prepared by Organica Engineering

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EXECUTIVE SUMMARY

In late 2019, the eight member Councils of the Eastern Alliance for Greenhouse Action (EAGA) engaged Organica Engineering to evaluate the extent to which Environmentally Sustainable Design (ESD) policies and practices are being implemented in council building projects and infrastructure delivery.

This final report presents the findings of the evaluation and includes council-specific recommendations to achieve best practice sustainability outcomes in the way council buildings and infrastructure are planned, designed, built, used and maintained. This report is accompanied by a template ESD policy, supporting policy guide and a regional report identifying collaborative implementation opportunities.

What's working?

Evaluation findings suggests Monash Council is achieving good ESD outcomes in the following areas:

- Council has recently committed to zero net emissions by 2025 and purchasing 100% renewable electricity, setting new level of ambition for the delivery and performance of buildings and infrastructure.
- Major capital works and upgrades of Council facilities usually include ESD components (e.g. over 100kW of solar PV panels, double glazing and rainwater tanks), however the extent varies depending on allocated budget.
- Substantial work has been undertaken to initiate an Energy Performance Contract to retrofit existing assets.
- Preparation for reviewing the Capital Works policy is well progressed, and some of this research has been integrated into the template policy and guide provided by this EAGA ESD policy project.

What's not working?

The following gaps were identified in Council's approach to ESD delivery for Council assets:

- No overarching ESD framework to guide decision making, planning and to coordinate activities across the organisation, resulting in some high-profile initiatives to progress without robust ESD considerations.
- Lack of a dedicated ESD technical resource means that there is limited in-house capability.
- The sustainability team have a growing influence over other service areas within Council to drive ESD outcomes in the delivery of new projects and renewals.
- Budgeting for and implementation of sustainability is not applied consistently.

- Asset renewal has traditionally focused on the building footprint and asset function and has not considered the surrounding environment and neighbouring landscape.

What needs to change?

The following recommendations are intended to assist further discussion within Council to address these identified gaps and move towards best practice:

- An aspiring ESD policy covering buildings and infrastructure should be adopted (by customising the supplied template) including SMART targets aligned to other organisational objectives (e.g. carbon neutrality and emission reduction targets).
- The ESD policy must include clear ESD standards for particular types of upgrades, aligned to Council's capital and operational budgets, for it to be effective and affordable over the lifespan of the facility or infrastructure.
- Ensure that ESD measures are adequately funded, through integrating ESD in procurement and project management policy and that life-cycle costing is incorporated into financial models and project budgets.
- Establish suitable cross departmental governance arrangements (i.e steering committee) to ensure internal expertise can be leveraged and appropriate oversight of policy implementation. This should be supported by accountabilities at the executive level, with KPIs allocated for teams and staff.
- Establish clear processes outside of the ESD policy on how the ESD policy is to be applied from project proposal to maintenance phase. These processes need to ensure that they do not unduly delay projects.
- Generate Sustainability Management Plans (SMP) for major projects and programs, and refer these for internal review. Simple approvals could be done by a quick referral to the most relevant subject-expert (e.g. drainage, energy, biodiversity, transport).
- Review ESD opportunities and challenges on a live project, such as the redevelopment of Oakleigh Recreation Centre as well as major infrastructure projects and a selection of smaller scale projects.
- Build in-house capability and capacity either by appointing an additional ESD officer or by establishing a training program for existing officers and project managers to ensure that ESD measures are correctly designed, budgeted, documented, delivered, commissioned and maintained in projects.
- Continue to pursue Energy Performance Contracting (EPC) to address inefficiencies in existing build stock, leveraging the learnings and resources of EAGA's region wide EPC program.
- Each Capital Works project should consider its surrounding landscape and environment (not only the affected asset footprint) as part of the early stages of planning. It should seek opportunities to integrate WSUD principles and enhance site specific and neighbouring environmental features (e.g. green corridor, lack of canopy cover, locally significant indigenous species and habitats).

1. INTRODUCTION

EAGA is a formal alliance of eight councils in Melbourne’s East, committed to delivering mitigation and adaptation projects and advocating for initiatives that support sustainable, low carbon communities. EAGA councils are widely recognised across the local government sector for their leadership on a range of sustainability initiatives, including Energy Performance Contracting (EPC), public lighting energy efficiency and renewable energy procurement.

The approach to ESD delivery in council buildings and infrastructure has traditionally been less coordinated, with each EAGA council at a different stage and level of maturity with respect to ESD policy and practice.

TABLE 1: Snap-shot of ESD policy status across EAGA members

Council	Policy	Comment
Boroondara	Yes	Policy covers buildings only
Glen Eira		No specific policy, referred to in strategy
Knox	Yes	Policy for buildings and infrastructure adopted June 2019
Maroondah	Yes	Policy covers buildings only
Monash		Policy for buildings and infrastructure in draft
Stonnington		No specific policy, referred to in strategy
Whitehorse		No specific policy, referred to in strategy
Yarra Ranges	Yes	Policy covers buildings only, currently under review

EAGA councils recognise the importance of policy for providing a consistent and holistic approach to ESD considerations within the design, scope of works, and construction of all new council buildings and infrastructure, as well as incorporating ESD principles into renovations, renewals and upgrades. Views on the extent and success of policy implementation vary within and between councils. A number of tools are available to assist practitioners with design (e.g. BESS) and specification (e.g. SECCCA ESD Matrix), however the capacity of the sector to apply these tools and modify work practices and service delivery is mixed.

Councils are now looking to consolidate their experiences to date by establishing a coordinated and uniform approach towards driving best practice in the delivery of council buildings and infrastructure.

2. OBJECTIVES & METHODOLOGY

The overarching goal of the evaluation was to assist councils to achieve best practice sustainability outcomes in the way council buildings and infrastructure is planned, designed, built, used and maintained. The scope of the project does not include an evaluation of ESD policies and implementation in planning schemes for privately owned buildings.

The objectives of the project were to:

- Evaluate the extent to which ESD policies and practices are being implemented in building projects and infrastructure delivery across all EAGA councils
- Undertake an evidence-based assessment of existing approaches, to assist and support councils adopt a new policy, or improve an existing policy
- Identify best practices approaches, pre-conditions for successful ESD integration, and tools/methods for overcoming barriers
- Build and enhance cross-divisional working relationships and collaborative capacity within and between councils to ensure that ESD policies and practices are successfully delivered
- Develop council-specific recommendations and consistent policy templates and guidance materials

Organica Engineering worked collaboratively with EAGA council representatives from the period of September 2019 to May 2020 to undertake the following evaluation tasks:

- A desktop review examining the policies, strategies and related documentation from each EAGA council
- Two online surveys for relevant staff (sustainability, assets, engineering etc.) to determine what's working and what is not and identify areas of need for the template policy
- Development of a gap analysis progress report to inform subsequent stakeholder engagement activities
- Workshops and/or interviews in each council to bring together cross divisional staff to discuss and capture the views and insights of stakeholders in greater detail
- Drafting and finalisation of outputs in collaboration with EAGA members

3. FINDINGS

This report should be read in conjunction with the regional report, which explores the evaluation findings in greater detail, and identifies common themes and benchmarks across EAGA councils. Table 2 provides an assessment of Council against the evaluation criteria developed through the review of best practice approaches. The evaluation criteria was applied across all councils to determine what is working, what is not working and what needs to change. The assessment is informed by:

- the gap analysis (See Appendix A)
- council specific survey responses (see Appendix B)
- outputs from staff workshops (see Appendix C)
- interviews and follow up discussion with relevant staff throughout the project

TABLE 2: Assessment of Council against the evaluation criteria

Criteria	Explanation of best practice	Evidence demonstrating current performance	Opportunity for improvement (to move towards best practice)
ESD is inherent in council's vision and decision-making.	Council adopts and adheres to an ambitious ESD policy covering both buildings and infrastructure.	<p>Commitment to zero net emissions by 2025 and purchasing 100% renewables</p> <p>Council has a reasonable record in implementing ESD measures in its building upgrades over the past 10 years, though the extent varies and is not consistent.</p>	An ambitious ESD policy covering buildings and infrastructure should be adopted, using the supplied template and guide as a starting point.
Commitments to ESD outcomes are clearly communicated through SMART objectives and targets.	Targets are understood by all stakeholders, and clearly aligned and linked to broader organisational objectives (e.g. carbon neutrality).	The Environmental Sustainability Strategy 2016 – 2026 sets targets for the built environment including Action 1.2.2: Council buildings and infrastructure are to be designed, built, operated and maintained to reflect Environmentally Sustainable Development (ESD) and Water Sensitive Urban Design (WSUD) principles”	<p>ESD policy includes SMART targets, linked to organisational goals and objectives</p> <p>Stakeholders are actively engaged (via cross division workshops etc) to develop an agreed set of objectives and project specific targets, informed by the provided policy guide.</p> <p>Continue to pursue an EPC program for existing assets to align targets and performance across asset portfolio</p>
ESD is imbedded into organisational governance and associated policies, plans, procedures and supporting project management systems.	ESD outcomes specified in all short and long-term Capital Works and Asset Renewal Plans. Staff (and other relevant stakeholders) are accountable for achieving ESD outcomes through KPIs and positions descriptions.	No clear evidence of end-to-end accountability for the delivery of ESD outcomes. Some project briefs include ESD requirements that if approved as part of the project budget, are delivered as part of overall project management accountability.	<p>Establish a cross departmental steering committee to leverage internal expertise and oversee policy implementation.</p> <p>Embed ESD into existing budgeting, procurement, project management and maintenance frameworks.</p> <p>Develop SMPs for projects and establish internal review process incorporating the internal steering committee.</p>
Adequate budget is allocated to ESD in the delivery of projects.	A minimum of 10% of all project budget allocated to ESD.	<p>ESD routinely included in project budget and purchasing.</p> <p>Tendering and purchasing decisions evaluated to prioritise ESD outcomes</p>	An ESD budget is included in all project nominations. ESD principles should be incorporated in the whole build from design to choice of materials. ESD budget should only be used to go above and beyond standard practice, and not for standard fittings such as paying for standard lights and windows.

Criteria	Explanation of best practice	Evidence demonstrating current performance	Opportunity for improvement (to move towards best practice)
		Life cycle costing not part of the budget process	Use of lifecycle costing approaches in business cases to support additional ESD measures outside the ordinary scope of the project. (see provided policy guide).
Capacity and capability of the team to successfully deliver ESD outcomes.	Responsible staff do not require ongoing advice and support from sustainability team and/or external advisors. Staff undertake regular training.	<p>Existing expertise and capability within the sustainability team and planning referrals teams</p> <p>Major capital works upgrades sometimes include ESD consultant support.</p> <p>If an ESD officer was recruited for planning ESD referrals they could also be utilised for Council's Capital Works projects</p>	<p>Utilise and adequately support internal ESD and environment staff input into projects.</p> <p>Ensure that external project design teams for major projects include an ESD professional as well as the usual engineers and architects to ensure that ESD is correctly scoped, documented and implemented.</p> <p>Provide regular capacity building training for the all officers and teams involved.</p>
Evaluation, monitoring and transparently reporting on ESD outcomes in projects	Validation and verification of the impacts of the ESD measures (versus BAU) is undertaken in all projects and transparently reported to stakeholders, ideally using recognised accreditations (i.e. Green Star)	No reporting framework specific to buildings and infrastructure ESD is currently used.	<p>Implement quality control for ESD within project delivery.</p> <p>Decide which types of projects will have formal ESD certifications.</p> <p>Report annually on how projects are meeting the requirements of the ESD policy, and link performance outcomes to KPIs for teams and key staff.</p>

4. DISCUSSION AND NEXT STEPS

Council has many years' experience in implementing sustainability initiatives and has ambitious goals for the future. The evaluation process presents an opportunity for Council to build on its past experience and to create an organisation-wide ESD policy for buildings and infrastructure that is clearly aligned to its other sustainability commitments.

The size of this opportunity is significant - in 2019/20, the Monash Council capital works program for community buildings and infrastructure was worth \$64 million with significant upgrades to core services such as drainage, footpaths, and roads. These works include the \$25.3 million redevelopment of the Oakleigh Recreation Centre, one of the biggest projects undertaken by Council.

4.1 Policy with targets

- It is recommended that the provided ESD policy template and guide be used for engagement with key internal stakeholders and modified through collaborative workshops and meetings to build consensus and ownership of the content and targets.
- Some policy thresholds and targets will need to be confirmed. This includes which projects will require an informal (design team discussion only) or formal (public) third party certification such as Green Star (Design and As-Built) or Infrastructure Sustainability (IS2.0), and what the targeted star rating will be. Monash Council's own research on the ESD policy can help guide this confirmation.

4.2 Governance

- The multidisciplinary nature of sustainability means that governance is important. A useful first step to collaboration between departments is to set up a regular (quarterly) steering committee meetings to discuss current major projects and programs, and to map out pathways for delivering the ESD policy.
- This collaboration needs to include the capital works and major projects teams, as well as environment (ESD referrals officer, waste, biodiversity, transport and climate resilience), stormwater engineering, procurement and facilities management. For infrastructure projects other departments and stakeholders may also need to be involved depending on the scope of the works to be delivered.
- This collaboration process will require a 'champion' at the director or executive level. This ESD champion will take responsibility for managing the collaboration between teams required by the ESD policy. This person will be responsible for chairing the steering committee and also responsible for embedding/allocating KPIs to teams and individuals. They will also need to facilitate resolution of initial objections or disputes about roles, responsibilities, resources and budgets if they arise.

4.3 Staff training and expertise

- Stakeholder feedback indicates there is strong support for an ESD policy, but the new policy needs to be supported by capacity building training, and also with embedding clear processes and targets across several different departments within Council.
- A budget bid should be prepared for an additional technical ESD officer resource to coordinate and review ESD performance on an ongoing basis. Potentially this could be internal or an appointed consultant.

- Best practice and sustainability is not the responsibility of a single officer, but takes a team approach from across council departments to achieve good outcomes throughout the asset life cycle.

Process mapping, Sustainability Management Plans (SMP), lifecycle budgeting

- ESD needs to be embedded into other existing processes used for projects. This means that right from the start during nomination and budgeting, sustainability should be considered, as well as in design, construction, commissioning, operations, maintenance and renewals. One survey comment *“Long term service planning is critical to quality implementation of ESD. If the Sustainable Buildings and Infrastructure Policy is reduced to a series of technological and/or sustainable features than it will be a very poor result. ESD is thought led process, not a checklist.”*
- This may need to include some process mapping with the sustainability team, and for Council to set up an internal referrals process to review Sustainability Management Plans (SMPs). For further information see the template ESD policy and guide produced by this EAGA project. Also see the process map created during the ESD workshop at the end of Appendix C. Extensive discussion on process is provided in the ESD Policy Guide produced by this project.
- A practical way for project teams to coordinate ESD between teams is to generate a SMP for each major project and program. This SMP can then be referred to the relevant internal officers or steering committee for review. This way Council can apply the same ESD standards to their own projects as they require for the rest of the community (with the planning scheme ESD standards).
- An SMP is normally generated by a sustainability professional appointed to the project design team, or for smaller projects as a checklist that is completed by the project officer. The SMP then becomes a useful specification document for the architect and engineers in the design team to ensure that they meet council standards. An SMP can also become part of the tender and construction documentation package, to ensure that sustainability requirements are implemented by the main construction contractor. The proposed process is outlined in more detail in the template ESD policy and guideline.
- Determine if there are suitably qualified people in Council to verify the more complex issues such as Indoor Environment Quality (IEQ) and renewable energy systems, or if there is a need to outsource verification. Simple checks, such as verifying that a correct WELS rated tap has been installed generally doesn't require a 'skilled ESD person'.
- Staff provided many useful suggestions on how to improve the process of how the different teams work together to achieve common ESD goals (see Appendix B and C). In particular, there was an agreement from officers on ensuring that clear targets and budgets for sustainability are established early in the project. Also, there was strong feedback that when sustainability initiatives are implemented, they are properly commissioned and maintained throughout the project life cycle.

4.4 Test policy against a 'live' project and evaluate

- One issue that was raised repeatedly was the immediate need to adopt strong sustainability targets and incorporate best practice measures. As per one workshop comment that there needs to be *“Clear standards and expectations to be communicated with supporting tools, checklists and ESD content to drop into project documentation e.g. business cases, briefs, specifications etc.”*
- Workshop and consultation feedback also repeatedly state that ESD is a 'bolt on' that is poorly integrated into infrastructure projects, and that infrastructure projects (especially during tendering) often do not consider wider impacts such as sustainable materials use and Water Sensitive Urban Design.

- When the policy is adopted, some higher profile projects can become a test case for the policy and supporting guide by showcasing what can be achieved. A project review should be undertaken on completion of the project and learnings from this can then be implemented back into the ESD policy and guidelines and adopted for other projects.
- The policy should be trialed for other major and minor infrastructure, building and refurbishment projects, and with post-delivery reviews undertaken to identify any further implementation needs.

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5. Appendix A - gap analysis

This table outlines Council specific comments on Gaps and Opportunities identified based on review of existing policies and through stakeholder surveys and discussions. This is a preliminary review only, with final recommendations and discussion to be released later in the project.

Topic	General Comments on Gap Analysis	Recommendations and comments
Benchmarking	<p>Monash is in the process of developing its ESD Policy and has provided some research documents.</p> <p>Surveying of Monash Council showed:</p> <ul style="list-style-type: none"> • Monash is one of only two councils to self report a “poor” budget for implementing ESD. • “Average” support from the Capital Works Team and Senior Management / EMT / Councillors • One of only three councils with a Sustainability Team that has a “good” capacity to provide assistance to the Capital Works Team with delivery. • One of three EAGA councils with an ESD Local Planning Policy (ESD LPP), which relates to residential and commercial development throughout the municipality since September 2016. 	<p>Some Council projects will require a planning permit and might trigger the ESD LPP, meaning that an SDA / SMP and BESS Report will need to be produced. It is not understood how regularly Monash’s Planners enforce this.</p>

Topic	General Comments on Gap Analysis	Recommendations and comments
<p>Background information and general flow of the Policy</p>		<p>A robust justification should be produced that captures the following:</p> <ul style="list-style-type: none"> • The benefits of buildings with ESD: there's the obvious energy and water savings, but also indirect benefits from improved indoor environment quality which leads to fewer sick days from staff • How an ESD Policy will help Council achieve its environmental goals (with links to other Council strategies) • Quick explanation on why the BCA/NCC (i.e. business as usual) is incapable of addressing ESD • A closing statement on how it is important for Council to 'lead by example' <p>Avoid goals and / or objectives that are difficult to measure e.g. "reduce energy consumption" and opt for benchmarks that are quantifiable "reduce energy consumption by 40% when compared with an NCC/BCA base case".</p>

Targets

A lot of data has been collected by Monash re: different targets for different types of projects e.g. 5 Star Green Star for a Major Project and 4 Star Green Star for Minor Project – and the many different ways to define a Major Project or Minor Project.

Recommend employing Boroondara's strategy of listing example projects in its targets / standards table:

<p>Major New Building⁵ Total project cost over \$4 million. For example: • Hawthorn Aquatic and Leisure Centre (2014) • North East Community Hub (2016)</p>
<p>Major Renewal, Expansion or Upgrade⁸ Over \$4 million - broad scope of works. For example: • Camberwell Library and Office Project (2011) • Boroondara Sports Complex (2015) • Balwyn Library (2016-17)</p>
<p>Other New Buildings⁵ New building with a total project cost under \$4 million and over \$1 million. For example: • Burwood Reserve Pavilion (2013)</p>
<p>Other Renewal, Expansion or Upgrade⁸ Under \$4 million and over \$1 million For example: • Balwyn Senior Citizens (Evergreen) (2014) • Camberwell Fresh Food Market (2014-15)</p>

This should aid in bringing clarity to an appropriate Minor / Major Project tipping point. A threshold for infrastructure projects also needs to be decided.

Achievable targets akin to Knox's 4 Star Green Star Certified buildings targets is the standard for projects between \$2 million – \$20 million. Indeed, a Certified 5 Star building is likely to perform better than an un-Certified 5 Star building.

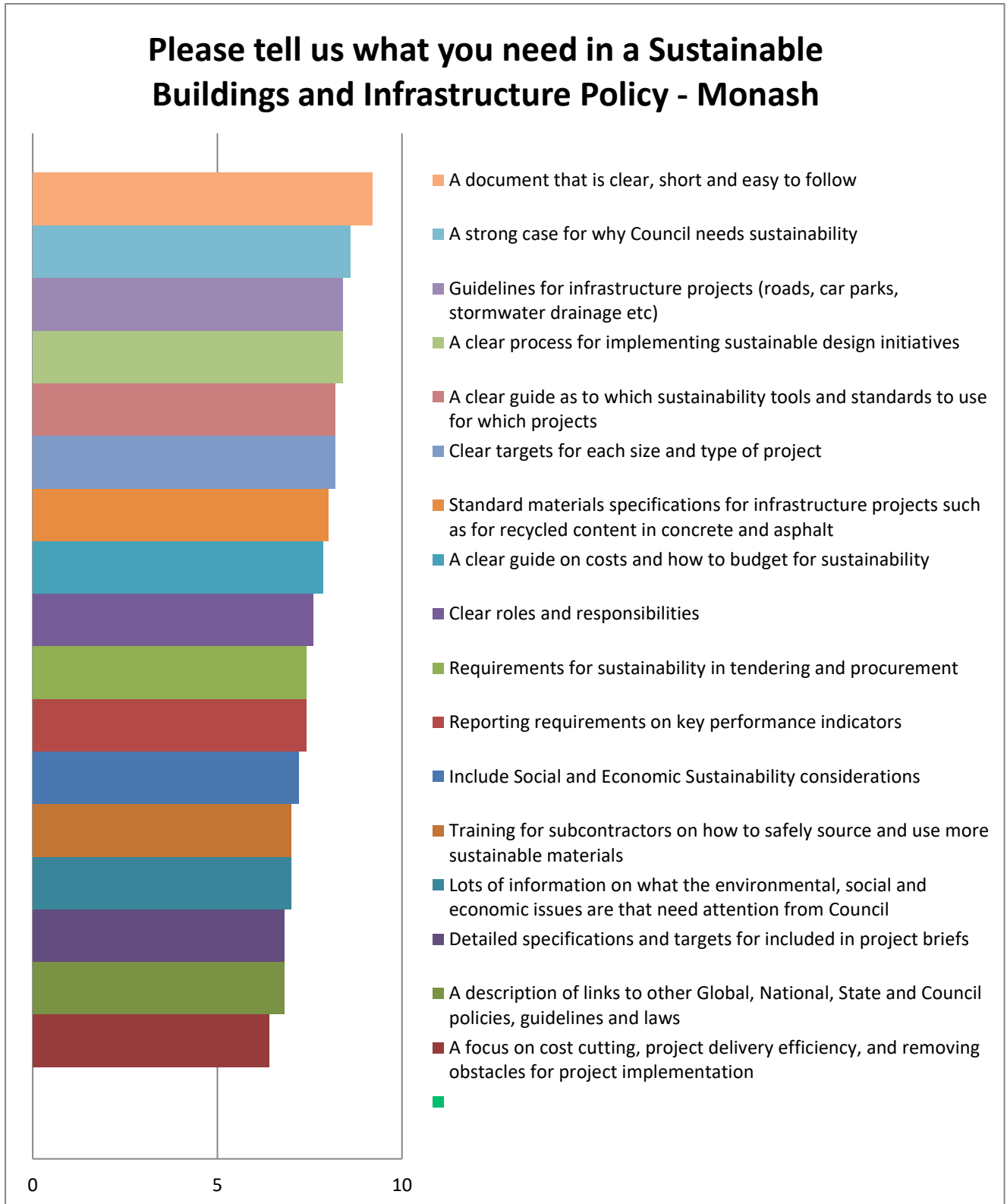
Topic	General Comments on Gap Analysis	Recommendations and comments
		<p>Only recommend introducing a Checklist if there's the necessary skillset within the Sustainability Team to execute, or if training and reporting will be established for the Capital Works team.</p>
<p>Budgeting</p>	<p>A "poor" ESD budget was reported.</p>	<p>As per the ESD Policy Development Process Section, establishing a healthy ESD budget needs to be done first and is fundamental to implementing ESD. A 10% ESD budget for all projects. This is the figure currently used by Port Phillip. Moreland is slightly lower on 8%. Figures as low as 5% can be accepted (this is what Glen Eira have), but this will generally result in some ESD features / benchmarks being unavailable.</p>

Topic	General Comments on Gap Analysis	Recommendations and comments
<p>Process for Implementation</p>	<p>“Poor” process to ensure that builders follow through with ESD.</p>	<p>Develop an ESD implementation flowchart and / or implementation tool that checks off on ESD at the following stages (at least):</p> <ul style="list-style-type: none"> • Preliminary Design (PD) • Detailed Design (DD) • Tender (T) • Construction (C) <p>Because there’s a great deal of variability as to when different ESD items / benchmarks can be “signed off”, it is likely that Council will need to develop an approach through consultation with the Capital Works Team with the help of someone external. It is unlikely that the approach for one council can be directly applied to another.</p> <p>For example, many Indoor Environment Quality (IEQ) benchmarks can be verified early on e.g. daylight access can be estimated during design development, the question is whether there’s a suitably qualified person from Council to verify IEQ at these stages, or would Council need to outsource this verification? Implementing and verifying (checking compliance with) ESD is a nuanced process, which is likely to evolve over time.</p> <p>The Guide to the policy will need to outline the process for implementing ESD in some detail, particularly around budgeting and scoping ESD into projects at the early stages.</p>

Topic	General Comments on Gap Analysis	Recommendations and comments
Compliance		<p>A robust implementation flowchart and / or implementation tool (in the Policy Guide that will be developed late in this project) would promote compliance within projects.</p> <p>As an extra measure, it is recommended that builder implementation of ESD is audited prior to granting completion payments. For example, with solar projects, some councils will only pay 80% of the associated fee after installation. The remaining 20% is paid after an audit by an accredited professional is conducted to ensure that the panels are installed “to standard”, and commissioned. Withholding only 10% of the fee is generally insufficient. If there are issues with the install, a lot of solar panel providers will forgo the final payment.</p>

6. Appendix B - council specific survey responses

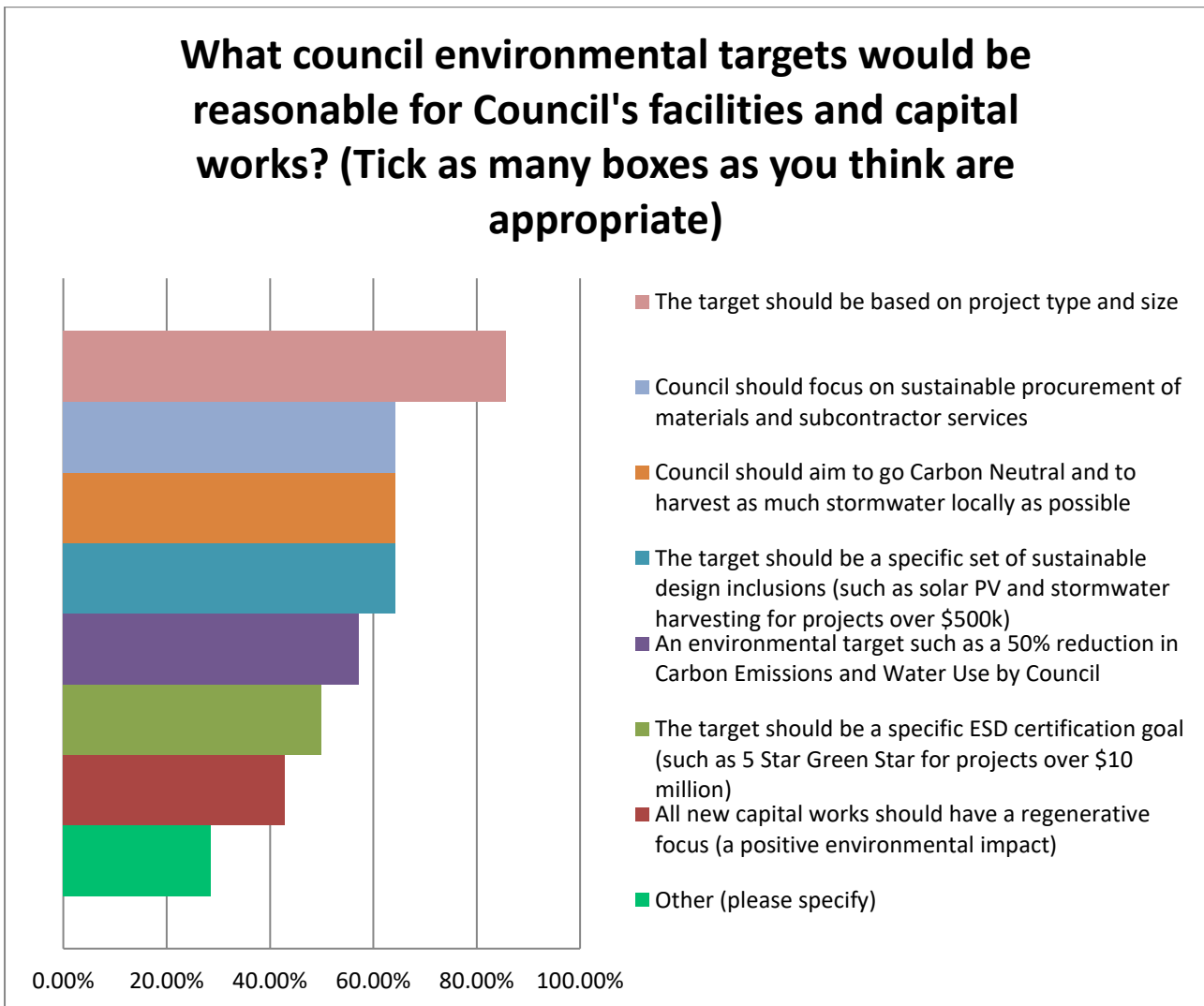
Figure 1 - Please tell us what you need in a Sustainable Buildings and Infrastructure Policy? (Weighted average: higher number = stronger agreement)



Other Survey Response Comments:

- The Sustainable Buildings and Infrastructure Policy is needed where no other policy or guidance exists. Issues such as roles and responsibilities, training, tendering, project delivery efficiency should be the focus of other policies. That will keep the Sustainable Buildings and Infrastructure Policy clear, focused and succinct. By all means have a list of actions where the policy can influence other policies and work flows but the Sustainable Buildings and Infrastructure Policy can't be all things to all projects or processes.
- Some detail guidelines and processes should be embedded in the relevant documents not in this policy. Standards, materials specifications are not relevant to a policy document - objectives and KPI'ss should be.
- We specify ESD requirements in project briefs and deliverables etc but when value management is required, my experience has been ESD initiatives often get cut.
- Linking the principles in the policy to the Sustainability and Asset Management Strategies / Plans actions

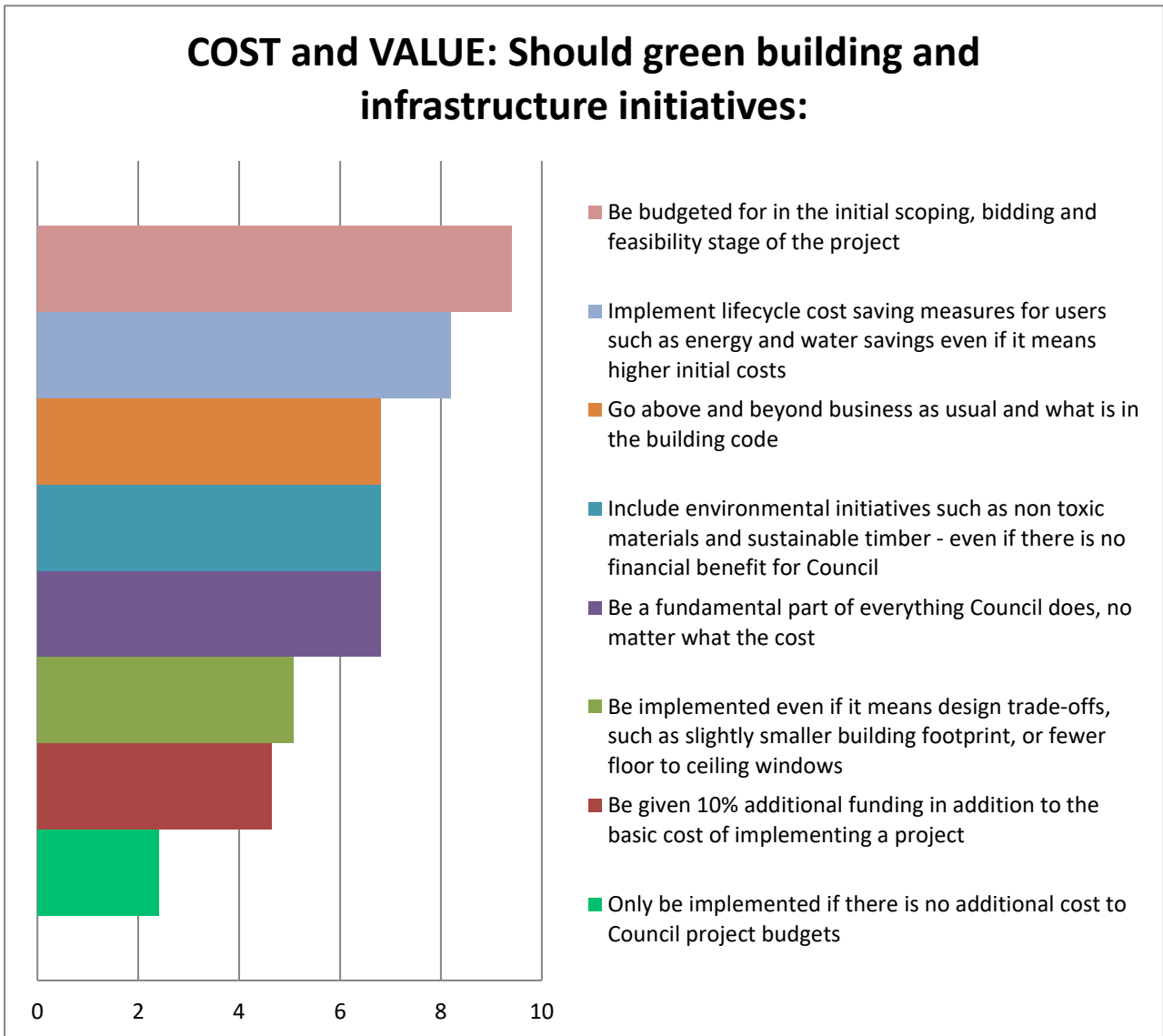
Figure 2 - What council environmental targets would be reasonable for Council's facilities and capital works? (Weighted average: higher number = stronger agreement)



Other Survey Response Comments:

- Again, Council should focus on sustainable procurement but this should be led by Procurement not by the Sustainable Buildings and Infrastructure Policy.
- Also whilst Certification targets, using 3rd party rating tools are useful, as they set clear direction for projects to follow and benchmarks to meet, the use of specific design inclusion has the opposite effect making it easy for projects to simply 'add the tick box widget' and its thank you our sustainable work here is done. Using the green roof example, those cities which have mandated green roofs, whilst seeing an increase the sqm of roof area greened, the overall benefits have been greatly diminished per sqm, as the industry worked out ways to hit the bare minimums with low grade sedum mat style roofs, without meeting the real values, such as habitat creation, biodiversity, urban cooling etc. I fear that if there were design inclusions this could mean we end up with a whole lot of PV but not a whole lot else.
- The ESD objectives should be suitably worded to embed in other strategic plans e.g. stormwater harvesting in the Flood Mitigation Strategy
- Targets should be variable to each project depending on a detailed assessment of energy use and sustainability initiatives available and value for money, payback periods. There is no point increasing project cost and ongoing maintenance by 50% just to meet a target if environmental benefit is small.
- Target for sustainability design inclusions should be on scope of project rather than project spend.

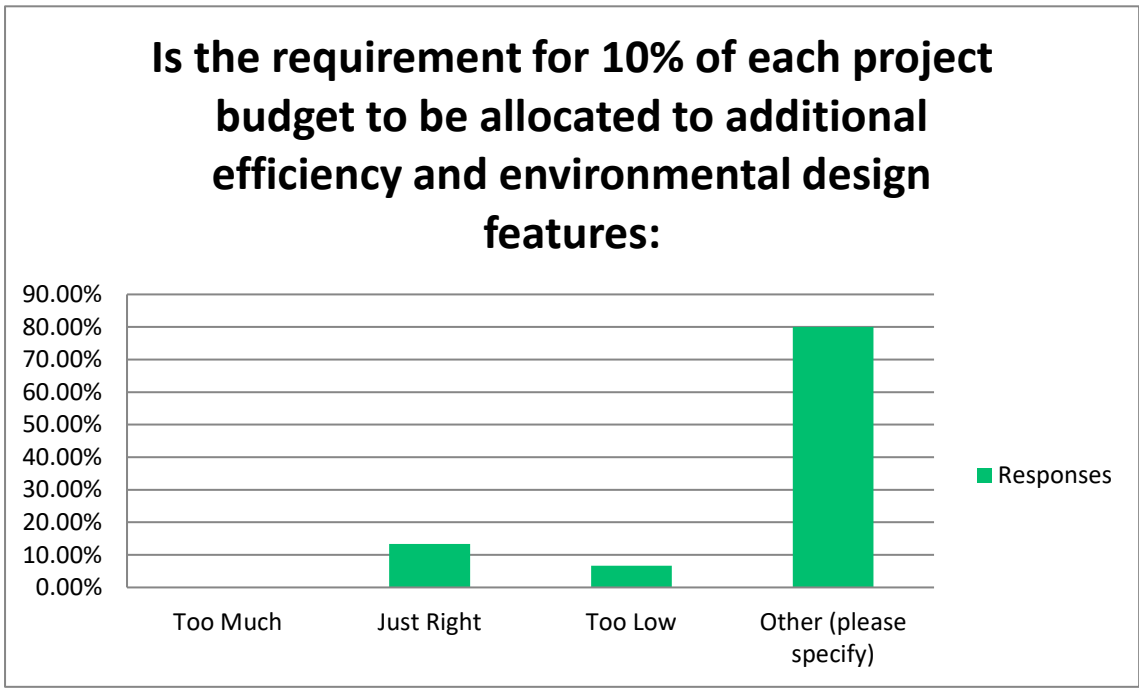
Figure 3 - COST and VALUE: Should green building and infrastructure initiatives? (Weighted average: higher number = stronger agreement)



Other Survey Response Comments:

- The building code and planning policy are bare minimums and not going to make us meet the changes the industry or council needs to.
- Would love to agree with all of the above but Council budgets would not be able to cover it all
- Initiatives should be considered as part of whole of life costing provides a saving (operational, maintenance and replacement). Where users outside of Council get the benefit, increase lease / license costs to re-coup.

Figure 4 - Is the requirement for 10% of each project budget to be allocated to additional efficiency and environmental design features: ? (Weighted average: higher number = stronger agreement)



Other Survey Response Comments:

- Don't know, can't answer.
- Inappropriate. 1 size does not fit all. Costing in this way will again lead to 'sustainable features' not holistic sustainable design thinking and delivery. Rating tools would be far more appropriate.
- A 10% increase across the whole CW budget would have a significant impact. Would need to consider how council will fund this
- Not relevant to set a target.
- Unknown to me, suspect it is too low but it is a start
- Scalable approach - less for smaller projects (10%) but more for larger projects (25%)
- All buildings where practical should be designed with efficiency and the environment as a priority
- Variable depending on project and impact
- Requirement should be considered of whole of life costing including operational, maintenance and replacement costs.
- consider a sliding scale based on indicative construction value. e.g. 10% of a \$200k project won't achieve much - but 10% of a \$10m will be excessive.
- This should be merit based on whole of life and cost benefit analysis
- Setting a percentage is not transparent and does not align with true benefit"
- It would depend on each project - for some we may want it to be higher where the project will benefit.

For larger projects proposed policy may require the design team to engage a sustainable design consultant and achieve 3rd party certification. This approach puts an ESD professional as a core member of the design and construct team, and opens the project to third party audits of ESD performance. Do you have any comments on this approach?

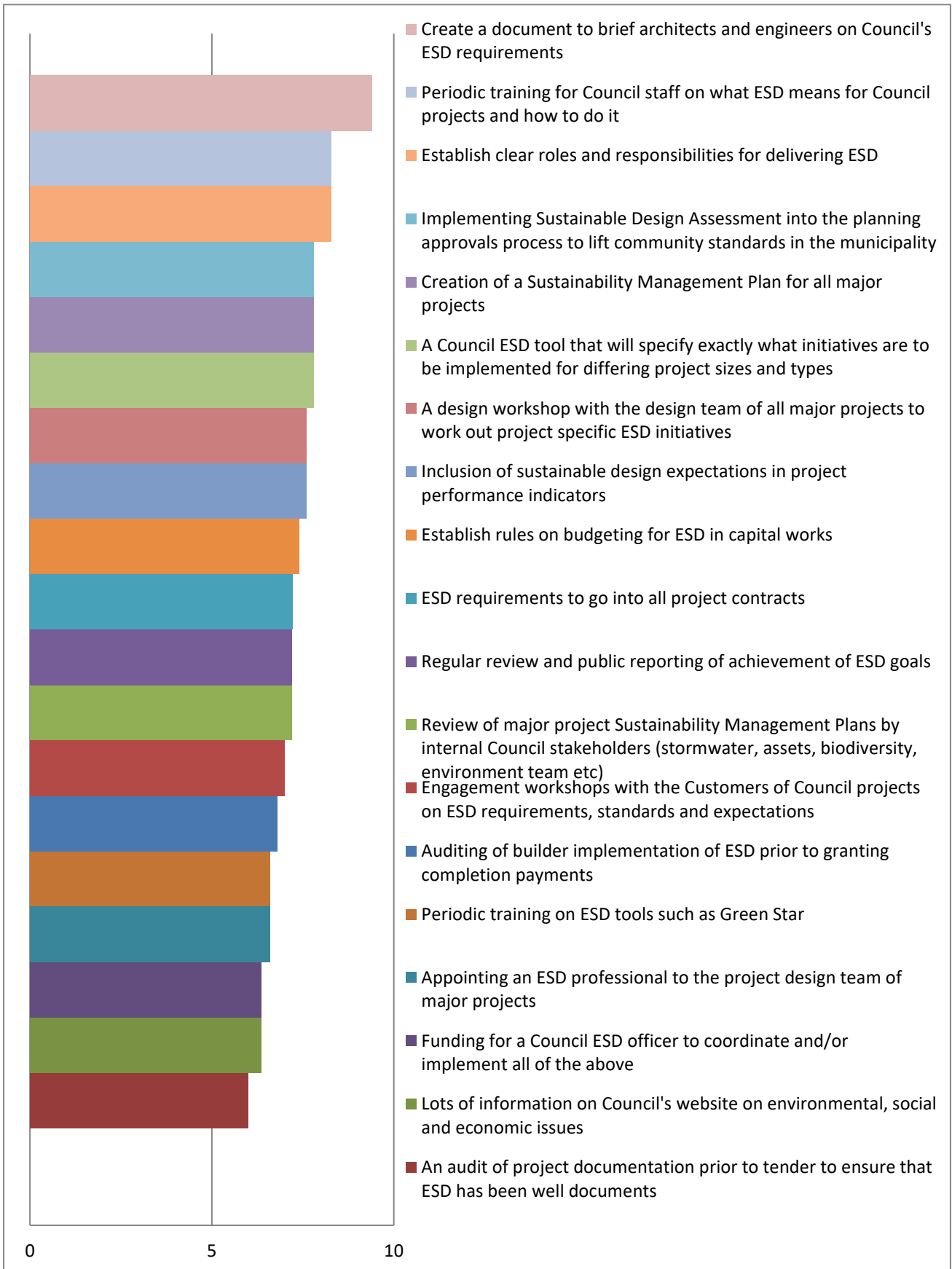
- I support this and this approach is standard practice in most capital projects of scale across Australia (both in the public and private sectors)
- Good approach to be involved throughout the project as it can also avoid cost blowouts in variations at a later date
- Only if it specifically achieves auditable status
- Excellent
- Support this approach for large scale projects - officers need further support to detail and articulate cost-benefit scenarios (business cases for ESD components) to justify increased project budgets and/or source ESD grants
- Sounds great to me
- Sounds good.
- this is another cost to be added and another roadblock to delivering a project on time/or having to add additional timeframe to all projects
- Should depend on project size
- Agree that large projects have people skilled in ESD and the operational / maintenance aspects of the design.
- 3rd party certification has significant cost imposts that could be better used to deliver outcomes.
- Yes agree; principle design consultant must engage subject matter experts in their fields to achieve quality and reconcilable outcomes
- We contract specialist for other aspects of the build and project manager so it makes sense to bring in ESD expertise

What process workshops or training are necessary to make you feel comfortable implementing a new policy?

- Once the policy is adopted and minimum targets are endorsed, minimum training should be provided for professional staff. Training may also be required for those more tangentially involved in projects.
- Bringing the right stakeholders together into a workshop is beneficial as long as it includes all teams from planning to construction, maintenance and asset handover
- As required
- Clear standards and expectations to be communicated with supporting tools, checklists and ESD content to drop into project documentation e.g. business cases, briefs, specifications etc. Ongoing ESD technical support and workshops for community groups e.g. what energy saving appliances can be used in council buildings etc
- training or workshops only once ALL the policy/guidelines has been locked in and approved by Council and additional funding approved for projects too
- Training would be good

- Workshops on the policy and training in its use is a must. Workshops to hear from all parties involved in the asset lifecycle.
- We all need to understand the why / how / what story.
- Process, detailed task/check lists subject matter experts, hands on with one on one support as necessary
- Systems that support efficient capture assessment analysis and reporting
- Probably guidance during a live process of commissioning work - person in the team to advise.

Figure 5 -What else needs to happen in addition to having an Environmentally Sustainable Design (ESD) Buildings and Infrastructure Policy? (Weighted average: higher number = stronger agreement)



What other key Council process issue(s) would a sustainable buildings policy need to address to make it useful and valuable?

- Project templates, contract templates, communications and engagement plans / templates.
Related Systems
- Long term service planning is critical to quality implementation of ESD. If the Sustainable Buildings and Infrastructure Policy is reduced to a series of technological and/or sustainable features than it will be a very poor result. ESD is thought led process, not a checklist.
- Important to link back to council plan and long term CW planning
- Additional build costs are off-set if the facility provides improved life and operational costs.
Need to address whole of life calculations
- Economic advantage of whole of life cycle costing as often off-sets higher initial costs
- Needs to relate to our procurement policy, Env Sust Strategy etc
- it needs to be there to assist and consult with and recommend but not ALL recommendations can be done, and this needs to be taken into account
- Show case projects
- ESD and the principles in the policy is what all officers involved in the asset lifecycle should inducted into in their first week at an organisation.
- As previously mentioned efficient capture reporting analysis systems
- Making ESD business as usual

7. Appendix C - Outputs from staff workshops

Comment from workshop
Ask the fundamental questions - do we really need a bigger building and more vehicles?
support proactive and ESD grant submissions to increase capacity for organisation leverage ESD grants for capital projects
triple bottom line reporting and KPIs
what are our sustainable outcomes the council will support (targets / aims / goals)
Cheques and balances for certification
measuring outcomes both financial and non financial
ask community about the value of ESD and consider an extra rights levy to fund increased ESD initiatives
leverage the owner, developer, occupier role that council has
Appropriate service planning and support from ELT to support initiatives
set targets KPIs and report annually
consider life cycle costing and ongoing maintenance costs and responsibilities
leverage develop contributions
cancel incentives and initiatives to him payment new practises such as alternative transport methods for staff
possible test case is Mulgrave reserve masterplan an environmental centre
support for EPC budget bid
select awards to win
develop integrate targets and goals for each project
Use the planning scheme for influence on private land and development
prioritise the customer experience from a sustainability lens
redirect storm water to irrigate reserves and open space either passively or by a system
benchmark building examples
Lack of long term planning on full lifecycle evaluation and financial and strategic planning
Monash is okay with being just okay
have preferred ESD consultants and supplier lists to assist in purchasing and procurement of services and products
use ESD intender evaluation criteria
awareness of sustainable products and practises end of building sustainability into specifications
what is the value of sustainability it is often not valued
scepticism from some community members due to recent failures for example the recycling crisis
It is sometimes difficult to get upfront funding - lack of community support reflected in counsellor values
time constraints to deliver projects

more information on sustainable options and products (capacity building).
Lack of triple bottom line accounting
lack of understanding of what ESD is (hint: it is not sustainable features)
like a follow through from specification to on site requiring additional resources and education
competition for annual budget funding
need more flagship examples
lack of real project evidence and lack of post construction ESD evaluation and ongoing review
Integrated approach to design within the whole landscape for example trees are valued and considered permanent natural assets - infrastructure that needs to be incorporated into the new building
a funding policy to encourage a percentage of total costs dedicated to ESD
standards for appliances and fittings used by licensees in council buildings - embed in occupancy agreements for example four star fridges and energy efficient appliances
overarching directives for new and existing buildings for example or buildings to have solar panels
training and building a culture of sustainable design!
Not included in original scope in concept in projects , lifecycle costs not considered in project business cases, council may not be the benefactor of the treatment
not having time to develop and plan and implement busy doing our day to day business
an attitude of “happy to support your initiative as long as it doesn't affect me or require my input”
really encouraging innovation and best practise
where is the leadership and practical support?
ESD often dropped at end of projects due to budget overrun
no standard that is consistent and agreed upon across departments
ESD is inconsistently applied some projects it works and some it doesn't
lack of knowledge and information an experience on friendly sustainable procurement with internal departments
cultural stagnation and lack of agreement on commitment to sustainable outcomes
lack of reward for innovation and excellence
access to grants
difficult to see benefits for council as clubs maybe the benefit only
greater use of recycled products
lack of a policy is a big impediment
Need to protect council from increasing utility costs
data sharing to openly share information for accurate interpretations
long term capex plan
external funding opportunities towards ESD initiatives
ensure ESD policy is implemented by appropriate processes and systems

emphasise efficiencies gained through applying a consistent policy
need to support innovations to look beyond the traditional solutions
provision for budget allocation for discretionary projects to capture ESD initiatives
take the guesswork out of project and scope - ESD scope to be present based on scale of projects and specify percentage of ESD spend
opportunity to develop a policy which works for everyone in every project - create clarity and consistency
business case justification -payback needs to be demonstrated - capital cost versus operational costs can be difficult when there are split incentives of council versus clubs and tenants
provide grants and support for clubs and associations
technical an advice and support to provide detail for the business case
Not enough time allocated for initial scoping and developing of projects
Lack of communication between Departments
poor budget allocation and not enough availability of resources to complete works
ESD standards to link with existing strategies strategy and policy for example sports ground classifications pavilion classifications playground classifications
be leaders rather than for followers - not waiting for Vic roads approvals of specification
clear deliverables and performance standards to be met
ability to negotiate and facilitate activity to achieve sustainability items
operational resources to maintain what is delivered - lack of confidence to include in first place
more electric charging stations for cars and plant and small plant
Engineers are risk adverse and prefer tried and tested methods - needs good technical data and sharing of information
opportunity to trial low cost innovative products
we have lots of large roofs to install solar panels
we need a programme to remove R22 HVAC systems (these are ozone depleting and greenhouse intensive chemicals that have been phased out)
Assets that are near end of life - replace with more sustainable options
we are automating more buildings
installing carbonmetrix and reviewed sites which helped us identify bills that we should not have been paying and issues at locations which required addressing
clear targets based on overall strategy prioritised on highest impact
compulsory ESD requirement as part of every new building design
BMS has been rolled out 218 buildings but can be installed at more locations
minimum standards!
what do we need: POLICY when do we need it: NOW!
All the barriers identified above need to be removed

elevating recycled content products 2 first choice in building design
better understanding of energy uses and opportunities to reduce
greater innovation trialling new sustainable designs, being a leader and fostering a culture of innovation
Being carbon neutral and net 0 energy cost buildings
life cycle costing to be considered in budget of project
during procurement evaluation to give local and social sustainability a higher weighting
have a register of sustainable products and companies
clear handover and monitoring of environmental initiatives

Below, process mapping from the workshop identified some of the areas where ESD could be incorporated into the capital works process (Red text).

