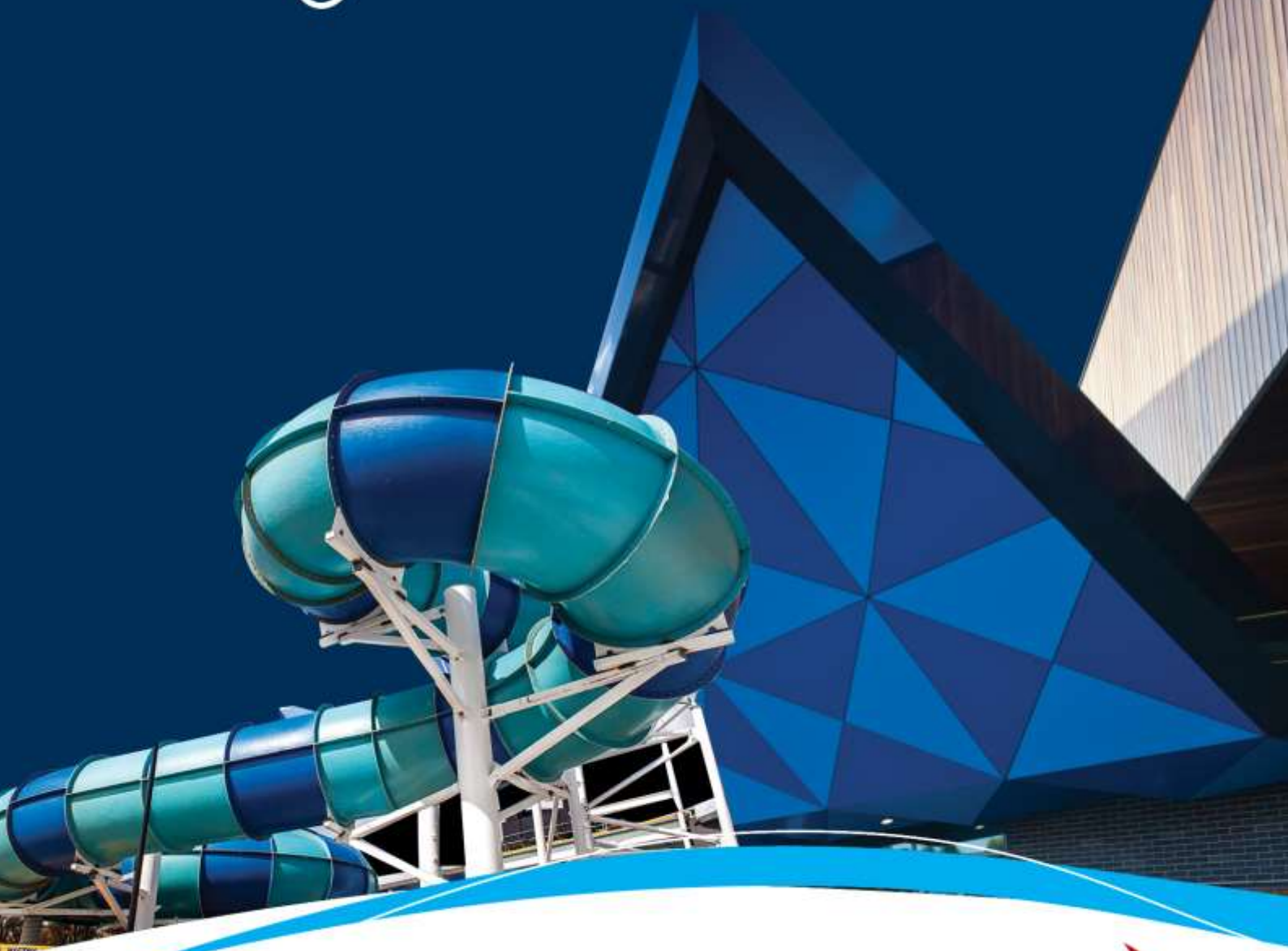




# Environmentally Sustainable Design Framework



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## 1. Introduction

### 1.1 Intent

The aim of the Environmentally Sustainable Design (ESD) Framework is to incorporate ESD principles into all Council buildings. This will be achieved by applying the framework into all new council building projects, asset renewal and extension of existing buildings and building maintenance works.

The intent of the ESD Framework is to:

- Reduce the operational costs associated with Council's buildings and facilities;
- Reduce the environmental impacts of constructing, refurbishing and operating Council buildings;
- Improve energy and water efficiency of Council's buildings and facilities;
- Provide a healthy indoor environment in Council's buildings;
- Demonstrate leadership to the community by adopting and promoting sustainable building design suitable for the region's current and future climate; and
- Reduce reliance on non-renewable grid electricity.

### 1.2 Scope

This ESD Framework applies to and includes provisions for new Council building projects, asset renewal and extension of existing buildings, and building maintenance works

### 1.3 Framework Content

The Framework comprises:

- **Council Buildings ESD Policy** – Sets Council's minimum ESD rating targets for new Council building projects, asset renewal projects, furniture and equipment fit-outs and building maintenance works and outlines the ESD implementation process from planning, through design to construction and evaluation
- **Council Buildings ESD Standards** – Outlines Council's specific design standards that support achievement of the ESD Policy Targets

## 2. Council Buildings ESD Policy

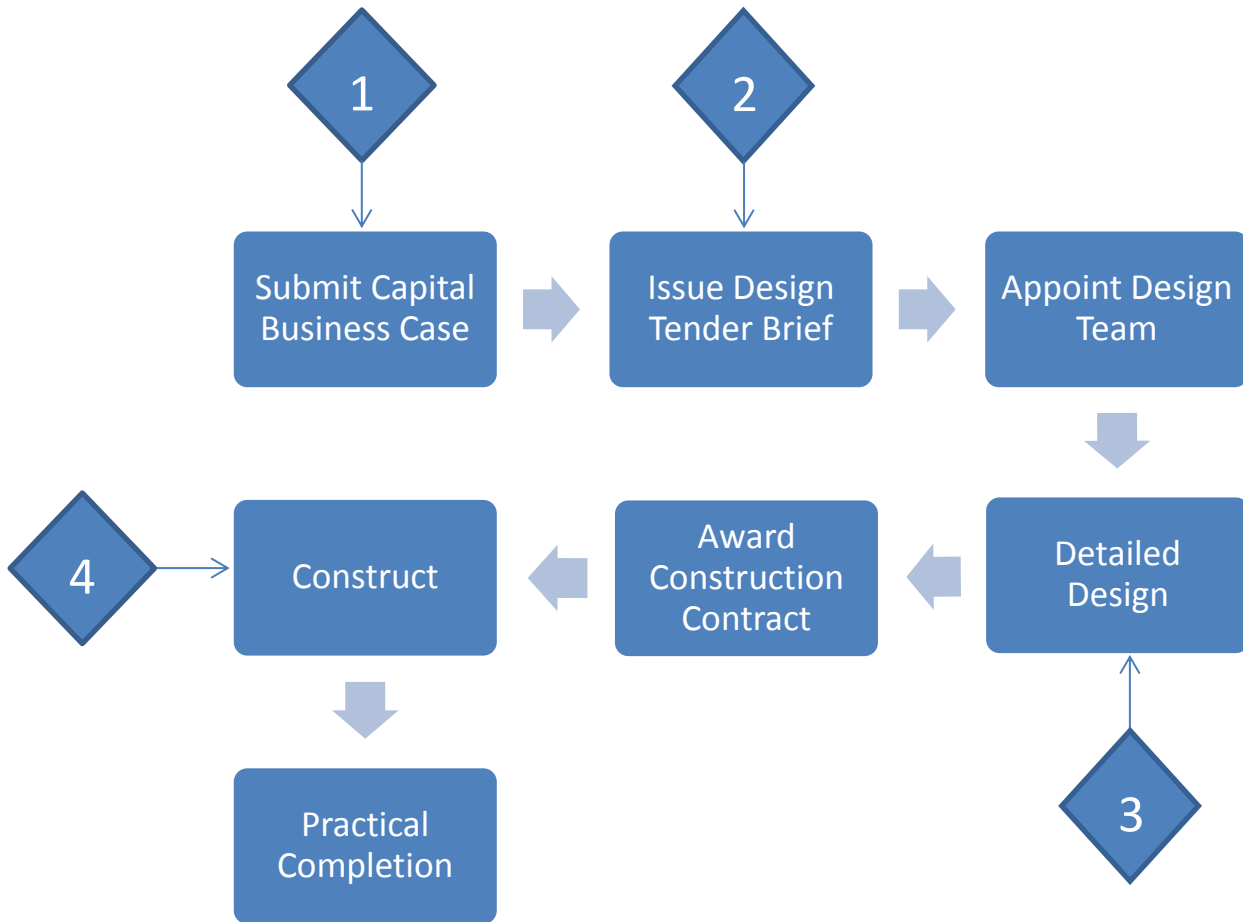
### 2.1 Council Buildings ESD Targets

Project Category <sup>1</sup>	Example Project	Planning and Design Specification Document	Minimum ESD Targets
<b>Major New Building or Major Refurbishment</b>	Cultural Centre, Community Hub, Civic Centre Redevelopment	Green Star Design and As Built Submission Guidelines V1.1	Certified 5 Star Green Star <sup>2</sup>
<b>Minor New Building or Facility Upgrade</b>	Standalone Sports Pavillion, Standalone Kindergarten	Council Buildings ESD Standards (Section 3)	Built Environment Sustainability Scorecard (BESS) Best Practice Benchmark <sup>3</sup>
<b>Furniture and Equipment Fit-out, or bulk procurement</b>	Community Hub Furniture and Equipment fit-out	Wyndham Staff Sustainable Procurement Guide	<p><b>Furniture and Finishes</b> Good Environment Choice Australia (GECA) or Eco-Specifier Certified product or; Recycled/Repurposed Furniture</p> <p><b>Electrical Appliances</b> Highest Energy Star Rating available applicable to appliance being installed</p> <p><b>Water Using Appliances and Fittings</b> Highest Water Efficiency Labelling Scheme Rating (WELS) available applicable to appliance or fitting being installed</p>
<b>Building Maintenance</b>	Replacement of an air-conditioning unit, Lighting upgrades	Council Buildings ESD Standards (Section 3)	Applicable Works carried out in accordance with the Council Buildings ESD Standards

## Footnotes

- 1.** For detailed project category definitions refer to Appendix C. Flexibility on the rating tool categories (Green Star or BESS) may be considered. Where divergence from the policies rating tool requirements is required justification of the rating tool (Green Star or BESS) proposed for the project shall be included in the Environment and Sustainability section of the projects Capital Works Business Case.
- 2.** The 5 Star Minimum Target does not preclude targeting 6 stars (the highest Green Star rating). For Green Star projects 6 star design strategies should be considered during the projects concept design stage.
- 3.** An overall score of 50% using the Built Environment Sustainability Scorecard Tool (BESS). It is important to note that this is a minimum requirement only and not the desired outcome. Principles and specifications listed in the Council Buildings ESD Guide are broadly in line with a BESS score of 70% or above (represents ESD 'Excellence'). The aim is to provide a buffer between what we design to and what our minimum target is.

## 2.2 ESD hold points in the Building Capital Works Cycle



1. Project owner confirms ESD Targets and Approach with Sustainability Team and incorporates a minimum 3% ESD contingency into total project budget
2. Sustainability Team 'Sign off' on ESD Scope of Works included in Design Tender Brief
3. Sustainability Team 'Sign off' on detailed design documentation prior to issue of Construction Tender (or furnishings, fittings and equipment schedule for fit-outs)
4. Sustainability Team 'Sign off' on implementation of ESD prior to practical completion of project

## 2.3 Detailed Project Implementation Process

### New Building and Asset Renewal Capital Works

<p>Planning Stage</p>	<ol style="list-style-type: none"> <li>1. <b>Pre-business case planning</b> - Project owner identifies the projects ESD minimum target as per the ESD Policy Statement early in project planning stage and confirm with Sustainability Officer*</li> <li>2. <b>Capital Works Business Case Submission</b> – Address mandatory Environment and Sustainability criteria with relevant ESD minimum targets as per the policy and add a minimum 3% ESD contingency to total project budget</li> </ol> <p>*Further to confirming a project’s overall ESD target, engagement of the Sustainability team at the earliest stage of project planning will allow early planning of ESD considerations relevant to the scale and typology of the building</p>
<p>Design Stage</p>	<ol style="list-style-type: none"> <li>1. Project team develops Design Services Tender Brief including ESD scope of works relevant to the scale and typology of the building (including Building User Guide requirement)</li> <li>2. Evaluate candidates to ensure ESD can be delivered (ESD Consultants to be appointed by Council in consultation with the successful architect)</li> <li>3. Architectural and Building Services Design Documentation developed in accordance with Brief</li> <li>4. Sustainability undertakes design review <u>prior</u> to construction tender to ensure ESD requirements have been met</li> </ol> <p>*For Green Star projects registration of the project with the GBCA should also take place during the design stage</p>
<p>Construction Stage</p>	<ol style="list-style-type: none"> <li>1. Formulate Construction Tender Brief that:             <ol style="list-style-type: none"> <li>a. Is In accordance with design documentation</li> <li>b. Requires main contractor to submit waste minimisation plan prior to construction</li> <li>c. Clearly assigns responsibility for commissioning, construction waste management</li> <li>d. Includes mandatory Environment Schedule</li> </ol> </li> <li>2. Evaluate candidates to ensure ESD can be delivered</li> </ol>

<p>Planning Stage</p>	<ol style="list-style-type: none"> <li>1. <b>Pre-business case planning</b> - Project owner identifies the projects ESD minimum target as per the ESD Policy Statement early in project planning stage and confirm with Sustainability Officer*</li> <li>2. <b>Capital Works Business Case Submission</b> – Address mandatory Environment and Sustainability criteria with relevant ESD minimum targets as per the policy and add a minimum 3% ESD contingency to total project budget</li> </ol> <p>*Further to confirming a project’s overall ESD target, engagement of the Sustainability team at the earliest stage of project planning will allow early planning of ESD considerations relevant to the scale and typology of the building</p>
	<ol style="list-style-type: none"> <li>3. Sustainability to set construction stage checkpoints to ensure correct implementation of ESD features, materials and construction waste management</li> <li>4. Sustainability to sign off on ESD delivery before practical completion is granted</li> </ol>
<p>Building Services Commissioning and Building User Guide</p>	<ol style="list-style-type: none"> <li>1. Independent building services commissioning over 12 months</li> <li>2. Construction contractor to complete Building User Guide and provide to occupants (only required for new building projects)</li> <li>3. ESD Consultant completes Green Star accreditation process (for Green Star Projects only)</li> </ol>

### Furniture and Equipment Fit-out Capital Works

<p>Planning</p>	<ul style="list-style-type: none"> <li>• Project owner/purchaser ensures product selection is made using the in accordance with the Wyndham Staff Sustainable Procurement Guideline GECA or Eco-specifier database</li> </ul> <p>*It is important to note that furniture and equipment procurement is sometimes undertaken by Council officers and sometimes by external design professionals. In both cases it is the responsibility of the Council officer overseeing the procurement to ensure the databases are used.</p>
<p>Purchase</p>	<ul style="list-style-type: none"> <li>• Prior to purchase project owner/purchaser confirms selected products meet ESD Policy requirements with Sustainability Team</li> </ul>

### Building Maintenance & Asset Renewal



Planning and Implementation	Ensure equipment upgrades and non-capital works building maintenance works are undertaken in accordance with the Council Buildings ESD Guide
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## 2.4 Role of Project Owners, Project Managers and Sustainability Team

While a collaborative approach is required to improve the sustainability of Council buildings and achieve the Framework's goals, ultimate responsibility for implementing the Framework lies with Project Owners, Project Construction Managers and the Sustainability Team.

### Project owners are responsible for:

- Initiating and planning projects in accordance with the requirements of the ESD Framework;
- Including ESD targets and requirements in project business cases relevant to the project type; and
- Incorporating ESD costs as a part of the project's total design and construction costs.

### The Sustainability Team is responsible for:

- Assisting Project Owners to correctly scope ESD requirements during the project planning stage;
- 'Signing off' on ESD requirements written into Design Services Request for Tender Documents (Design Services RFTs);
- Liaising (together with Project Manager) with design teams to ensure ESD requirements are met and that suitable Green Star design strategies are developed in the case of Green Star projects;
- 'Signing off' on completed detailed design documentation;
- Evaluating construction tenders to ensure successful candidate can deliver ESD requirements; and
- Undertaking site checks (together with Project Manager) during construction to ensure ESD requirements are being correctly delivered.

### Project Managers are responsible for:

- Including ESD targets, and standards into Design Services RFTs in accordance with policy and standards;
- Liaising (together with the Sustainability Team) with design teams to ensure ESD requirements are met and that suitable Green Star design strategies are developed in the case of Green Star projects;
- 'Signing Off' on completed detailed design documentation; and
- Undertaking site checks during construction to ensure ESD requirements are being correctly delivered.

## 2.5 Costing ESD in Building Capital Works Business Cases

The costs of ESD can vary greatly from project to project. Factors that will influence the cost of ESD include:

- The level of ESD targeted.
- The design measure or approach employed (i.e. passive design measures may have negligible costs compared to mechanical solutions).
- Whether an ESD measure represents an additional or incremental cost increase to business as usual.
- The degree to which ESD measures decrease the costs of a project.
- The reducing cost of some ESD measures over time (i.e. solar costs have reduced dramatically in recent years).

Studies that have looked at the cost of implementing ESD provide varying and often conflicting information. Using the metric of Green Star Benchmarks, a 2010 study indicates the following cost premiums for ESD above business as usual construction:

- 4 Star Green Star – 0 to negligible cost difference;
- 5 Star Green Star - 0 to 6% premium; and
- 6 Star Green Star – 3% to 10% premium.

Based on the above factors and study, Council will incorporate a 3% ESD contingency additional to normal project cost to ensure ESD requirements are adequately accounted for at the business case development stage.

## 2.6 Driving Innovation and Exceeding Benchmarks

Large and frontline community facility projects have the option of being designated as ESD showcases, where Council will deliberately trial new technologies, approaches or more ambitious targets. Where this is the case, this should be identified during the planning phase before the project budget has been allocated, so the appropriate resources can be applied to the project. In addition to the ESD targets set, Wyndham will also seek to achieve Carbon neutral buildings in new building and refurbishment projects.

## 2.7 Reporting

Implementation of the Framework will be reported on annually in both the State of the Environment Report and Sustainable Procurement Report.

The State of the Environment Report will look at the percentage of projects undertaken in accordance with the Framework, the effectiveness of implementation as well as highlight significant projects and achievements.

The Sustainable Procurement Report is an annual report which aims to drive Council expenditure on environmentally and socially preferable products and services. Expenditure on the ESD component of building project costs will be captured in this report.

## **3. Council Building ESD Standards**

### **3.1 Introduction**

The following design standards have been prepared by Wyndham City Council to assist in meeting the requirements of its Council Buildings ESD Policy when designing, constructing and renewing Council buildings.

The standards consist of two sections.

- Section 3.2 Design Standards for New Council Building and Asset Renewal Projects; and
- Section 3.3 Materials and Technologies Checklist for Upgrading of Existing Buildings

Section 3.2 is primarily intended to inform the design process of new Council buildings and extensions or renewal falling into the BESS rating tool category and sets out Councils ESD standards across eight design categories. As such Section 3.2 forms the basis of the ESD scope of works section in Design Tender Briefs issued by Council. This section does not apply to projects where a Green Star Rating is the goal, in which case the Green Star As-built submission guidelines will form the main ESD guiding document.

Section 3.3 is primarily intended as a sustainable procurement checklist for operational asset maintenance of existing buildings where an in-depth design process is not applicable. For example, upgrades to office lighting or replacement of individual building components such as flooring or roofing.

Both sections relate to each other in that they both represent best practice ESD and sustainable procurement principles, but are tailored to the different operational requirements of building design and building maintenance.

## 3.2 ESD Design Standards for New Buildings

### 3.2.1 Design Documentation and Project Management

**Guiding principle:** Design documentation clearly demonstrates Wyndham's ESD Targets and standards have been applied.

#### Built Environment Sustainability Scorecard (BESS) Report

For new building projects subject to the BESS Target, the Design Team is required to provide a completed BESS Report demonstrating that the design achieves an overall score of 50% or above using the scorecard. On projects with a dedicated ESD Consultant this will be the responsibility of the ESD Consultant (supported by architect and engineers). In smaller projects that may not include an ESD Consultant, the BESS report will be the responsibility of the lead designer (generally the Architect).

#### Labelling and demonstrating ESD features in Design Documentation

- ESD features and design strategies are labelled or highlighted in architectural/services drawings, specifications and schedules.

#### Metering

- Community Centres to include separate metering for the different services being housed (for example kindergarten separate from a maternal and child health centre)
- BMS to allow sub-facility energy and water use monitoring where applicable

#### Building Use Guide

- Building User Guides to be prepared by the design team principal for all buildings and provided to building occupants as part of a formal induction

#### Energy and Daylight Modelling

- Schematic Design Stage Thermal and Energy Simulation - Undertake a preliminary energy simulation (building fabric and services) to demonstrate
  - o 25% or above improvement on BCA Section J Deemed To Satisfy (DTS) requirements; and
  - o An optimised passive design approach
  - o The predicted greenhouse gas emissions footprint of the building
- Daylight optimisation modelled for community centres, kindergartens, regularly occupied buildings, etc.

## Commissioning

A one year post occupancy commissioning period carried out for all buildings by an independent building services commissioner

### 3.2.2 Passive Design

**Note: The Passive Design Standards are primarily aimed at buildings that will have regular staff or community occupancy – kindergartens, community centres, sports pavilions etc. For some smaller Council buildings occupancy may be intermittent (toilet blocks, minor sports pavilions/shelters etc.). Where this is the case the passive design principles need only be applied in part as appropriate to the scale and typology of the building/structure.**

**Guiding principle:** Buildings that provide great thermal comfort year round while avoiding or minimising the need for auxiliary heating and cooling

#### Winter Passive Heating, Cooling and Ventilation

- Optimised winter solar gain/summer shading
- Roof/ceiling/wall total R-values above BCA minimum requirements where added benefit can be demonstrated through energy simulation
- Floor plan zoning based on heating needs (i.e. main occupancy zones faced north)
- Double glazing, heavy window covers (consider automated run times) and snug pelmets included to minimise overnight heat loss during winter/autumn
- Demonstrate integrated thermal massing for night time heat radiation / enhanced passive solar gain during day – earth coupled slab / polished concrete etc.
- High efficiency heat exchanger to achieve 75% or above ventilation heat recovery

#### Summer Passive Cooling and Natural Ventilation

- Fixed or adjustable external shading provided throughout as appropriate
- Minimise direct solar gain
- Adjustable internal blinds provided as appropriate
- Effective cross ventilation - openable windows/clerestories, ceiling fans, orientation to capture dominant breeze
- Use of night purge encouraged where secure solution can be provided
- Indoor/outdoor spaces to provide summer heat respite
- Use of deciduous plantings that interact with the building envelope for shading purposes encouraged – species selection in accordance with Landscape Species List
- Pale and reflective roofing/wall and car park colour palette to minimise summer heat retention
- Local Indigenous green roofs/walls encouraged that enhance overall passive design strategy, are low maintenance and suitable for local climate, light and wind conditions

## Passive Design Building Management System

- Where scale of project warrants an integrated BMS, passive design strategy to be automated mixed mode (i.e. ambient temperature set points to run natural ventilation/cooling features, auxiliary heating etc.)

### 3.2.3 Energy

**Guiding Principle:** Carbon Positive Buildings

#### Energy Efficiency – Lighting

- Employ use of natural light to minimise artificial lighting – skylights, clerestory, atrium etc.
- External and internal artificial lighting to employ occupancy sensors, lux level sensors, lux/occupancy combined sensor or BMS shutdown as appropriate to building type and uses
- Artificial lighting efficiency benchmark – 6W or less per m<sup>2</sup> averaged across the building net floor area (at maximum wattage)
- LED Technology exclusively for all lighting including external and car park lighting

#### Energy Efficiency – Heating, Ventilation and Cooling

- Mechanical heating, cooling and ventilation (HVAC) equipment, settings and sizing integrated with overall passive design strategy
- Preference gas-boosted solar hot water for domestic hot water
- Under sink boiling hot water units programmed to shut down after hours or according to occupancy schedule
- Consider rainwater integrated solar hot water system for sports pavillion showers
- Reverse cycle split system AC units within one star of highest available for output (kW) required
- Reverse cycle split systems to be provided in the community area only of Sports Pavillions

#### Renewable Energy

- 100% of electricity demand met via rooftop solar PV (can include predicted energy grid export as part of demand/generation calculation)
- Gas demand minimised via solar thermal where applicable (Flat Plate)
- Solar PV/battery storage options to be provided as part of concept design

#### Peak Energy Demand Management

Passive design, BMS and on-site energy generation systems optimised for minimisation of peak energy demand during summer temperature extremes

### 3.2.4 Water Efficiency and Storm Water Management

**Guiding principle:** Best-practice water efficiency with all rain and storm water either reused or treated

#### Fixtures and Fittings

Fixtures and Fittings meet WELS Standards as per the Water Action Plan

- **Shower Heads:** 3 Stars, 7.5 L/S
- **Shower Taps:** Push button time delay variable temperature
- **Toilets:** 5 Star
- **Urinals:** 6 Star, Sensor Operated
- **Staff, Community and Sports Pavilion Taps:** 6 star WELS, sensor operated
- **Public Amenities Taps:** Push button time delay
- **All appliances:** 5 Star WELS
- **Wash-down hoses:** Commercial high pressure water efficient trigger nozzles

#### Rain / Stormwater Harvesting and WSUD

100% of hard surfaces connected to either rain / stormwater harvesting and re-use or water sensitive urban design (WSUD) treatments (rain gardens, tree pits, bio-swales suitable to local climate etc.)

#### Landscaping Irrigation Systems

Where landscape Irrigation is required, systems are to be automated (rain-shutoff, time-clock automated) and integrated with rainwater / storm water storage

### 3.2.5 Materials

**Guiding Principle:** Recycled content, Low Toxicity, Low Embodied Energy where fit-for-purpose solution exists

- Cross Laminated Timber (CLT) structure options to be provided during concept design (Lower Embodied Energy)
- All timber (structural and architectural) either Forest Stewardship Council (FSC) Certified ( or recycled
- Paints, adhesives, sealants volatile organic compound (VOC) levels as per Green Star Low VOC Tables
- Preference fit for purpose bamboo or recycled hardwood for hard flooring
- Soft flooring – Preference Interface Carpet Squares or equivalent



- PVC alternative options to be provided for plumbing and drainage reticulation
- All other finishes Good Environmental Choice Australia (GECA) or Eco-specifier Certified

### 3.2.6 Waste

**Guiding Principle:** Zero Waste Facilities

#### During Construction of the Facility

Waste minimisation plans to be provided to Council before commencement of construction – targeting at least 80% (by weight) of building waste reused or recycled.

#### Operational Waste

All facilities (excluding toilet blocks) to be provided with comingled, paper and organics waste recycling facilities. The spatial and operational requirements of waste reuse and recycling should be considered in the design of the building and where appropriate integrated into the building fabric and site layout. For example if organics or comingled waste recycling is identified as viable for a facility an appropriate internal or external space should be allocated and the required infrastructure included as part of the facilities equipment schedule

### 3.2.7 Transport

**Guiding principle:** Connected, universal access facilities that encourage and provide for sustainable travel modes

#### Connectivity

- Connectivity to transport nodes within the site, adjacent to it and surrounding (bike paths, bike storage, car parks, public transport nodes, pedestrian networks)
- Connectivity should allow shared transport modes (paths approx. three metre width where modes likely to converge)
- Way finding included as appropriate directing to bike/pedestrian networks

#### End of Trip Facilities

##### All buildings

- Bike hoops with capacity and parking space to handle child trailers, electric vehicles
- Internal charging points with appropriate berth for motorised mobility devices

##### Buildings with high number of regular occupants and car park

- Car park includes motorbike spaces
- Consider secure bicycle storage with shower and change room facilities

- Consider charging point for e-vehicles (car/bike)

### 3.2.8 Land Use and Ecology

**Guiding principle:** Buildings and Landscaping that enhance and add to existing habitat and biodiversity values

#### Siting and Orientation

- Siting, orientation and view lines take into account site specific context as per Landscape Context Guidelines
- Where site is in proximity of conservation zone, habitat corridor links to be included in landscape plan

#### Landscaping

- Landscaping plans and specifications in accordance with Wyndham Landscaping Standards and Specifications and Tree Species list (see Landscape and Urban Design Team)

### 3.3 Materials and Technologies Checklist for Upgrades of Existing Buildings

Building Component	Preferred Suppliers Panel or Sustainable Procurement Data Base
<b>Lighting</b>	
<p>LED technology used exclusively for all lighting upgrades and one-of replacements</p> <p>Where an upgrade of the lighting fixture is required to allow an LED fitting obtain quote on upgrade for consideration</p>	<b>Electrical Services Panel</b>
<p>Lighting General</p> <ul style="list-style-type: none"> <li>- Ensure LED lighting upgrades are updated in lighting inventory to avoid obsolete orders</li> <li>- Accessibility for maintenance and practicality</li> <li>- Vandal proof caging required externally</li> <li>- By-pass switches for testing of emergency, exit and external lighting</li> </ul>	<b>Electrical Services Panel</b>
<b>Reverse Cycle Split System Air-conditioners</b>	
<p>New or replacement split systems to be highest energy star rating available for size (KW) and system required</p>	<a href="http://www.energyrating.gov.au">www.energyrating.gov.au</a>
<p>Split systems will include wired wall mounted controllers with administrator lock out capabilities of hi &amp; low temperature, fan speed, run time. Infrared remote controllers are not to be used</p>	<a href="http://www.energyrating.gov.au">www.energyrating.gov.au</a>
<p><b>Server Room Split Systems</b></p> <ul style="list-style-type: none"> <li>- Server Room units thermostat set at 23 degrees with administrator lockout (i.e. not adjustable without password)</li> <li>- Server rooms to be thermally sealed</li> </ul>	<b>AC Maintenance Contractor</b>
<p><b>Office Accommodation Works</b></p> <ul style="list-style-type: none"> <li>- Qualified HVAC advice recommended for significant accommodation re-configurations</li> </ul>	<b>AC Maintenance Contractor or HVAC Consultant</b>

<b>Building Component</b>	<b>Preferred Suppliers Panel or Sustainable Procurement Data Base</b>
<b>Water heating</b>	
<b>Domestic Hot Water</b> <ul style="list-style-type: none"> <li>- Preference gas boosted Solar HW</li> <li>- Vandalism protection and limiting roof access essential considerations</li> </ul> <b>Under Sink Boiling HW units</b> <ul style="list-style-type: none"> <li>- Time Clock Automated – i.e. shuts off overnight</li> </ul>	<b>Clean Energy Council (CEC) Accredited Solar HW and PV Retailers and Installers</b> <a href="http://www.solaraccreditation.com.au">www.solaraccreditation.com.au</a> (local installers available)  <b>Plumbing or Electrical Services Panel</b>
<b>Electrical Appliances - General</b>	
All Electrical Appliances to be highest energy star rating for product required	<a href="http://www.energyrating.gov.au">www.energyrating.gov.au</a>
<b>Non Structural Concrete Works</b>	
Recycled Content Concrete	<b>Recycled content concrete</b> Widely available through general building material suppliers
<b>Timber, Particle Board and Internal Wall Cladding</b>	
<b>Use of Timber Products</b> <ul style="list-style-type: none"> <li>- Forest Stewardship Council (FSC) or PEFC certified or Recycled</li> </ul>	<b>Certified Sustainable Timber</b> Widely available through general timber suppliers  <b>Recycled Timber</b> Widely available through recycled timber specialists
<b>Particle Board and Plywood</b> <ul style="list-style-type: none"> <li>- Super E0 (Zero Formaldehyde) Particleboard and Ply</li> <li>- Consider Ortech Easiboard Straw Panels (Renewable Resource, Low VOC)</li> </ul>	<b>Super E0 Particleboard and Plywood</b> Widely available through general building material suppliers
<b>Flooring</b>	
<b>Hard Flooring Finish</b> <ul style="list-style-type: none"> <li>- Preference Bamboo or Recycled Hardwood Flooring</li> </ul> <b>Soft Flooring Finish</b> <ul style="list-style-type: none"> <li>- Preference Recyclable Carpet Squares</li> </ul>	<b>Carpet Squares</b> Widely available through general flooring suppliers  <b>Bamboo Flooring (Various Suppliers) &amp; Recycled Hardwood Flooring</b> Widely available through general flooring suppliers

Building Component	Preferred Suppliers Panel or Sustainable Procurement Data Base
<p><b>Vinyl Flooring</b> Where Vinyl Flooring must be used or replaced use Eco-specifier database to select Environmentally Preferable Products</p> <p><b>Waste Vinyl flooring to be recycled through the Vinyl Council of Australia's Product Stewardship Program</b></p>	<p><b>Environmentally preferable Vinyl flooring</b> <a href="http://www.ecospecifier.com.au/products/">http://www.ecospecifier.com.au/products/</a></p> <p><b>Vinyl flooring recycling</b> <a href="http://www.vinyl.org.au/pvc-the-environment">http://www.vinyl.org.au/pvc-the-environment</a></p>
<p><b>Flooring adhesives and sealants</b></p> <ul style="list-style-type: none"> <li>- Low VOC products</li> </ul>	<p><a href="http://www.ecospecifier.com.au/products/">http://www.ecospecifier.com.au/products/</a></p>
<b>Roofing Upgrades/Repairs</b>	
<p><b>Tiles</b></p> <ul style="list-style-type: none"> <li>- Preference recycled content concrete tiles</li> </ul> <p><b>Steel Roofing</b></p> <ul style="list-style-type: none"> <li>- Recycled content Colourbond or Zinalume (Bluescope steel)</li> <li>- Preference high reflective/thermo shield products to minimise heat absorption</li> </ul> <p><b>Quality Roof Decking (to support Maintenance Personnel)</b></p>	<p><a href="http://www.ecospecifier.com.au/products/">http://www.ecospecifier.com.au/products/</a></p>
<b>Painting and Finishes</b>	
<p><b>Internal Wall Paint</b></p> <ul style="list-style-type: none"> <li>- Use Low VOC, Water Based/Mineral Based Paints</li> </ul> <p><b>External Wall Paint</b></p> <ul style="list-style-type: none"> <li>- Use low Toxicity, Mineral Based Paints</li> <li>- Anti Grafitti Coating on Split Faced Bricks</li> </ul>	<p><a href="http://www.ecospecifier.com.au/products/">http://www.ecospecifier.com.au/products/</a></p>
<p><b>Timber Finishes (External/Internal)</b></p> <ul style="list-style-type: none"> <li>- Use Low Toxicity, Natural Oil Based Products where feasible</li> </ul>	<p><a href="http://www.ecospecifier.com.au/products/">http://www.ecospecifier.com.au/products/</a></p>
<b>Plumbing &amp; Drainage</b>	
<p><b>WELS Standards</b></p> <ul style="list-style-type: none"> <li>- <b>Shower Heads:</b> 3 Stars, 7.5 L/S</li> <li>- <b>Shower Taps:</b> Push button time delay variable temperature</li> </ul>	<p><b>Fixture and Fittings selection</b> <a href="http://www.waterrating.gov.au/">http://www.waterrating.gov.au/</a> or <b>Plumbing services panel</b></p>

<b>Building Component</b>	<b>Preferred Suppliers Panel or Sustainable Procurement Data Base</b>
<ul style="list-style-type: none"> <li>- <b>Toilets:</b> 5 Star</li> <li>- <b>Urinals:</b> 6 Star, sensor operated</li> <li>- <b>Staff, Community and Sports Pavilion Taps:</b> 6 star WELS, sensor operated</li> <li>- <b>Public Amenities Taps:</b> Push button time delay</li> <li>- <b>All appliances:</b> 5 Star WELS</li> <li>- <b>Wash-down hoses:</b> Commercial high pressure water efficient trigger nozzles</li> </ul>	
<p><b>Rainwater Tanks</b></p> <ul style="list-style-type: none"> <li>- Rainwater tanks to be included in new buildings or significant asset renewal works where an appropriate use for the water can be identified</li> </ul>	<b>Plumbing Services Panel</b>
<p><b>Drainage</b></p> <ul style="list-style-type: none"> <li>- Silt traps in Sports Pavilion Change Rooms</li> <li>- Adequate sized box guttering and overflows to handle large rain events (l</li> <li>- Vandal proof lockable taps fitted outside for wash down</li> <li>- Gutter design to limit leaf and detritus build up</li> </ul>	<b>Plumbing Services Panel</b>
<p><b>Water Meters</b></p> <ul style="list-style-type: none"> <li>- Lockable cages around water meters</li> <li>- Facilities with annual demand &gt;10ML (For example aquatic centres) to include BMS connected sub-facility water use metering</li> </ul>	<b>Plumbing Services Panel</b>
<b>Doors, Windows and Locks</b>	
<p>Window and glass door upgrades and Replacements to achieve 4 Stars (combined heating and cooling) in the Window Energy Rating Scheme (WERS)</p>	<p><b>Window and Glazing System Thermal Ratings</b>  <a href="http://www.wers.net/wers-home">http://www.wers.net/wers-home</a></p>
<p><b>Doors</b></p> <ul style="list-style-type: none"> <li>- FSC Certified Timber + E0 (Zero Formaldehyde) if particleboard type</li> </ul>	<b>Building Services Panel</b>

<b>Building Component</b>	<b>Preferred Suppliers Panel or Sustainable Procurement Data Base</b>
<p>product</p> <p><b>Locks</b></p> <ul style="list-style-type: none"> <li>- Mortise Locks Lockwood Synergy Series – 3570</li> </ul> <p><b>Door Furniture</b></p> <ul style="list-style-type: none"> <li>- Lockwood 1800 Series – Lever or Knob</li> <li>- Lockwood 1900 Series - Level or Knob Handles</li> </ul> <p><b>Door Closers</b></p> <ul style="list-style-type: none"> <li>- Dorma TS83 or TS73</li> </ul>	
<b>Alarms</b>	
<p>Security systems to be Tecom Challenger (Forcefield) for compatibility with councils remaining systems</p> <ul style="list-style-type: none"> <li>- Capacity for 100 user codes</li> <li>- Programming of areas (to be determined by WCC)</li> </ul> <p>Internal sirens/squealers to be zoned to corresponding area ensuring building coverage</p>	<b>Electrical Services Panel</b>
<b>Toilet Roll, Hand Towel and Soap Dispensers</b>	
<p><b>Staff and Community Facilities</b></p> <p>Toilet Roll Holder</p> <ul style="list-style-type: none"> <li>- Kimberley Clark Double Jumbo Roll Dispenser (70210)</li> </ul> <p>Soap Dispenser (Hand basins and kitchenettes)</p> <ul style="list-style-type: none"> <li>- Kimberley Clark Mini 500 Dispenser-Code</li> </ul> <p>Hand Towel Dispenser</p> <ul style="list-style-type: none"> <li>- Kimberley Clark Optimum Hand Towel Dispenser</li> <li>- Kimberley Clark Compact Hand Towel Dispenser</li> </ul> <p><b>Public Toilets</b></p> <p>Toilet Roll Holder</p> <ul style="list-style-type: none"> <li>- Single Sheet Dispenser</li> </ul>	<b>Building Services panel</b>

<b>Building Component</b>	<b>Preferred Suppliers Panel or Sustainable Procurement Data Base</b>
<b>Hand Dryers</b>	
Dyson Pro, Jet master or equivalent	<b>Building Services panel</b>
<b>Cleaning Bulk Consumables</b>	
Cleaning bulk chemical consumables to meet Good Environmental Choice Australia Environmental Performance Standard for Cleaning Products	<b>Compliant Product list</b> <a href="http://www.geca.org.au/products/standards/49">www.geca.org.au/products/standards/49</a>



## Appendix A – Council Building Project Categories

Category	Building Project Inclusions	Example Project
<b>Major New Building</b>	All new building works with a total design and construction value above \$10M or;  Flagship Council Building Projects	Administration Office, Library, Cultural Precinct, Large Community Centre
<b>Major Refurbishment</b>	A major upgrade to an existing building with a total design and construction value above \$10M or;  Flagship asset renewal projects	Major Civic Centre Extension
<b>Minor New Building</b>	All new building works with a total design and construction value between \$200,000 and below \$10M	Childcare Centre, Sports Pavillion
<b>Minor Refurbishment</b>	All renewal works to refurbish or replace existing facilities with a total design and construction value between \$200,000 to \$10M	Refurbishment / renewal of a community or sports pavilion
<b>Furniture and Equipment Fit-out or bulk procurment</b>	Any furniture or equipment procurement	Furniture and equipment fit-out of Saltwater Community Centre
<b>Building Maintenance</b>	All routine and reactive maintenance	Replacing air-conditioning unit, lighting upgrades