

Sustainable Luxury

A Specifier's Guide to Designing a Stylish Eco-Friendly Bathroom



Introduction

According to a recent Boston Consulting Group survey of more than 3,000 respondents across eight countries, people have grown more – not less – concerned about addressing environmental challenges in the wake of the pandemic, and are more committed to addressing their own behaviours to advance sustainability.¹ In recent years, we have seen consumers become more eager to reduce their environmental footprint, extending to how they live their lives, the products they buy, and the spaces they occupy.

This heightened environmental awareness extends into bathroom design. As one of the most frequented spaces in the home, eco-friendly bathrooms are more important to us than ever before. Homeowners are actively seeking sustainable products, innovations and apps that make it easy for bathrooms to be more sustainable, not just to save money but also for greater peace of mind that their actions are treading lightly on the environment.

However, there is a tension between designing a bathroom that delivers sustainable outcomes, and our desire for luxury. Modern bathrooms have evolved from purely functional spaces to private sanctuaries – havens for wellbeing, solitude and self-expression. Homeowners want beautiful, spa-like spaces that reflect their own tastes and preferences; spaces that add joy and comfort to simple, everyday routines.

Addressing the concern for sustainable bathroom products does not mean a compromise in design, but it does mean designers and specifiers need to take a considered and informed approach when choosing fixtures, fittings and finishes. There are bathroom products available that respect our dependence on the natural environment while also delivering premium aesthetics and functionality.

In this whitepaper, we provide a specifier's guide to designing a luxury bathroom that delivers sustainable outcomes without sacrificing design, atmosphere and beauty. This guide is organised under five key design considerations for creating a sustainable luxury bathroom: minimising water usage, utilising bathroom technology, integrating renewable and recyclable materials, designing for durability and longevity, and creating a timeless aesthetic to tie it all together.





Minimise water usage

Water conservation and our care for the natural environment are reflected in the bathroom fixtures we choose. In Australia, the Water Efficiency Labelling and Standards (WELS) scheme is designed to help designers, specifiers and homeowners choose water-efficient products. Products are tested for water consumption and awarded a rating of up to 6 stars, reflecting their average water consumption per use or average water flow per minute.

A key component of designing a sustainable luxury bathroom is choosing water-using products that are rated highly under the WELS Scheme. For example, a standard shower head uses between 15-25 litres per minute of water, whereas a 3-star shower head only uses 6 or 7 litres per minute.² The most efficient showerheads have a 4-star WELS rating, which demonstrates a flow rate of 6 litres per minute or less.³ Opting for a higher-rated showerhead results in significant water savings for a household.

This is also true when choosing a toilet or urinal. A 4-star WELS rating is the industry standard for water-

efficient toilets. WELS 5 and 6-star toilets are available but they are not as common as they incorporate either a macerating feature or an integrated hand basin. If a normal household replaces an old single-flush toilet (flush volume of 12L) with a 4-star toilet (average flush volume of 3.5L), they can save 50kL each year on water usage.⁴ For even greater savings, 5 and 6-star WELS rated toilets are now available.

The most water-efficient taps have a 6-star WELS rating, which demonstrates a flow rate of 4 litres per minute or less.⁵ Low-flow taps or flow restrictors can also be specified to decrease water usage.

Nowadays, there are many options for efficient and well-designed fixtures and appliances that allow you to reduce your impact on the planet without compromising on style. Leading manufacturers offer a wide range of on-trend finishes and colors as well as an array of shapes and profiles, supporting any style of bathroom. These customisation options enable designers to match finishes across a bathroom for a refined and cohesive look that is critical to achieving a luxury aesthetic.

Utilise smart bathroom technology

New bathroom technology is an increasingly popular way of lowering a bathroom's environmental impact through innovative water and energy-saving features, but also have the added benefit of making bathroom routines easier and more enjoyable. Solutions range from relatively simple solutions, such as touch-free taps and automated lighting, to more advanced integration of 'smart' fixtures and fittings that help homeowners monitor water and energy usage in real time.

Smart showers are one innovation that can improve the bathroom experience. Smart showers enable users to fine tune water flow and spray patterns for optimum efficiency while still delivering a satisfying shower.

Thermostatic mixers allow showerheads to deliver a consistent supply of the user's preferred temperature. User preferences can be preset to minimise the time spent adjusting the shower during use, which also helps reduce water waste.

Leading solutions, such as the Caroma Smart Command Eco Shower include innovations such as the water

recapture feature, which recaptures water while the desired water temperature is being reached. In addition to precision control, users are able to understand water usage patterns, and monitor shower performance through integration with home management systems.

Smart toilets may also be considered, with some models offering advanced hygienic designs that clean the full bowl with less water, and features that prevent excessive flushing. Touch-free flushing, integrated bidets, odour control, and automatic lid closing and opening are other common features.

While smart technology is often associated with a 'high-tech' or futuristic look, there are many smart bathroom products that incorporate their functionality seamlessly into their design. Manufacturers 'hide' hardware and systems behind walls, with a simple, clean control interface being the only visible element. The showerhead, tap and/or toilet themselves will often look fairly conventional, with leading brands offering a choice of shapes, finishes and colours.

A muted colour scheme with natural tones can help incorporate sustainable fixtures and fittings seamlessly. Features that invite touch and interaction add character and avoids the space becoming too sterile.

Integrate renewable and recyclable materials

Sustainable materials are not always the first thing that comes to mind when one thinks about a luxurious bathroom. Eco-friendly products are often associated with a more austere look or a less-refined aesthetic that runs counter to the lavishness and extravagance we envision when designing luxury spaces.

However, the paradigm is shifting. New luxury bathroom products are incorporating renewable and recyclable materials into sleek, minimalist designs. Manufacturers are also reducing their carbon footprint through responsible sourcing and manufacturing practices.

When designing a sustainable luxury bathroom, designers and specifiers need to look at materials from a more holistic perspective. This means considering how materials are sourced, the life cycle impacts of the material on human health and the environment, the expected lifespan of the material, and its potential for recycling and reuse.

Sustainable bathroom materials are typically those with the following characteristics: recycled or reclaimed from a previous use, derived from rapidly renewable resources, sourced locally, and/or certified as sustainable by an

accredited third party. Locally-sourced products are important in supporting local communities and industries, while also reducing the embodied emissions associated with transporting products.

Responsibly-sourced and certified local timber is a sustainable option that can be incorporated into vanities and other surfaces to imbue bathroom spaces with natural warmth and character. Certified timber products are derived from woods that are grown and harvested using environmentally and socially responsible methods from sustainably-managed forests. To achieve certification, sustainably-managed forests must respect the rights of indigenous peoples, maintain the well-being of local workers and the community, conserve biological diversity and ecosystems, and use the forest efficiently.

Other eco-friendly options included salvaged timber, recycled copper and bamboo. You can choose tiles made from recycled glass, discarded clay or ceramics. Less conventional options include cork, natural plasters and low carbon concrete. Healthy materials that do not contain heavy metals, plastics and volatile organic compounds should be preferred.



Design for durability and longevity

A durable bathroom – one that lasts for many years – provides a long period of time to amortise the environmental costs incurred from building it. The longer a bathroom lasts, the less energy and resources are needed to build a new one. It also means less waste is generated that would otherwise add to Australia's growing landfills. In 2017, construction and demolition activities contributed 20.4 megatonnes (MT) of waste, 6.7MT of which went into landfills across Australia between 2016 and 2017.⁶

To design a bathroom that lasts, ensure the chosen materials are suited for bathroom applications. If required, protective coatings may be required to protect bathroom surfaces from moisture and provide resistance to wear

and tear. Products that are made from recyclable materials and designed for disassembly are more likely to be reused at the end of their service life rather than ending up in landfills.

The reputation of the manufacturer is important in determining the quality and reliability of bathroom products. Quality design and engineering ensures a product provides many years of use without failure or need for replacement. Fixtures and fittings with fewer components are less likely to fail over time while also reducing excess material usage. Extensive product warranties ensure the product is adequately supported, thus extending its lifespan.

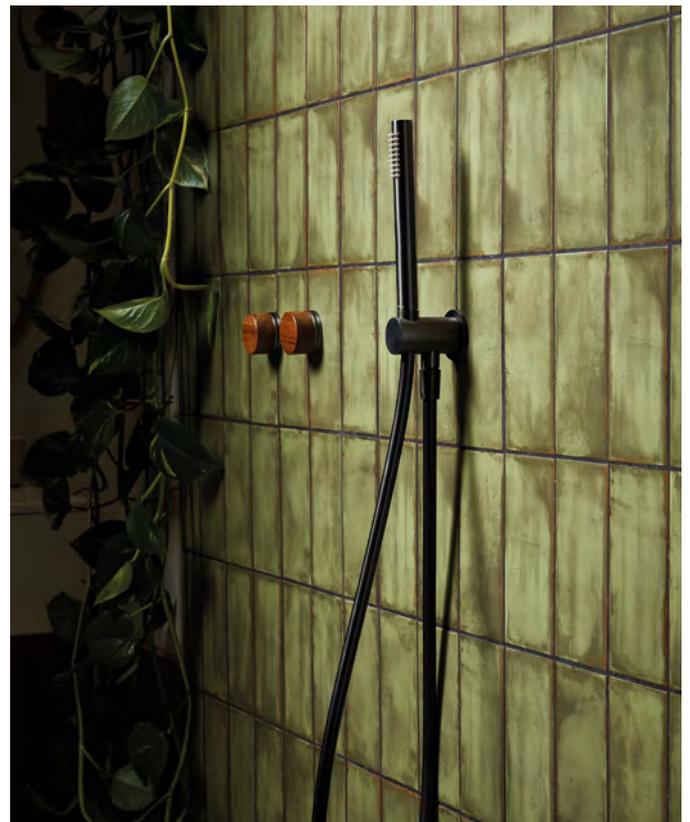
Create a timeless aesthetic

A timeless interior ties all bathroom elements together with a cohesive look and feel that simultaneously conveys a sense of warmth and comfort. While many styles can achieve this, choosing one that will not go out of fashion quickly will avoid the need for a major space overhaul as trends and tastes change.

For this reason, a minimalist style and a focus on practical finishes and functional items provides a base that the homeowner can adjust over time. A muted color scheme with natural tones can help incorporate

sustainable fixtures and fittings seamlessly. Features that invite touch and interaction add character and avoids the space becoming too sterile.

Creating a unified look with matching tapware and accessories can be challenging given the diverse range of products on the market. Some companies offer bathroom collections with consistent design language and a durable selection of matching colors across all components to help designers achieve design synergy effortlessly.





Elvire Collection by Caroma

CREATED WITH SUSTAINABILITY IN MIND

Carefully crafted to bring the experience of Australian nature into the home, the Caroma Elvire Collection reflects contemporary minimalism with a design that is both practical and stylish. The collection received a prestigious Good Design Award Gold Accolade in the Product Design Hardware and Building category in recognition for outstanding design and innovation.

Featuring distinct bespoke solutions, this Elvire range marks a new benchmark in bathroom luxury with its unique combination of intuitive design, beautiful aesthetics and environmentally sustainable solutions. Sustainably-sourced Tasmanian timbers have been selected for their natural beauty and versatility throughout the collection, and to celebrate the beauty of Australia's natural environment.

Vanities & basin. Featuring your choice of Tasmanian Oak or Tasmanian Blackwood, Elvire vanities and basins are finished with a satin seal, with no staining, to accentuate the natural beauty of the product. The distinct thin-edged basins are made with enamelled steel and crafted with precision for complete symmetry and a flawless fit.

Baths. The Elvire bath is crafted using solid surface material, meaning it's highly durable, non-porous, and smooth and warm to the touch. It features a high-gloss finish, 375L capacity and includes an integrated solid surface pop down waste for a seamless look.

Tapware. Striking gunmetal taps come with a metal knurled detailed handle, or combine with your chosen Tasmanian signature timber handle to create a luxury tapware range like none you've seen before. Available in a bench or wall mounted mixer as well as a stunning bath filler to complement your Elvire bath. These taps feature progressive cartridge technology for accurate temperate flow and control.

Toilet suites. Every detail has been considered in the Elvire toilet suite range, with hard-wearing PVD gunmetal seat hinges, a quick release soft close seat, timber Invisi flush buttons and Caroma's patented Cleanflush® technology. The range includes both wall hung and wall faced Invisi Series II® as well as a wall faced close coupled option.

Accessories. The Elvire signature sustainable timbers are incorporated throughout this range of essential accessories, making them the ultimate finishing touches to your stunning Elvire-inspired bathroom. Elvire accessories include toilet roll holder with shelf, towel rail with shelf, hand towel rail with shelf and robe hook.

For more information on the Elvire Collection, visit the Caroma website at: <https://www.caroma.com.au/collections/artisan/Elvire>

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⁶ <https://www.mit.edu.au/news/all-news/2019/jul/construction-industry-waste-landfill>

All information provided correct as of April 2022