

ENVIRONMENT FACT SHEET

“Sustainability in sport means to move the organisation forward in a more ecological direction, with each business decision in consideration of how it will impact the environment around us.”



NV Environment Working Group (EWG)



Netball Victoria (NV) is highly committed to a future in which sport can continue to develop in an environmental and sustainable way. NV became a member of the Sports Environment alliance (SEA) in 2019 and in early 2020, established the NV Environment Working Group (EWG) to focus on 'empowering our netball community to live healthier lives in a healthier environment'.

This fact sheet provides simple ways in which our stakeholders can develop our sport and our communities to become environmentally aware and improve health and wellbeing outcomes for generations to come.

HOW DOES CLIMATE CHANGE IMPACT ON NETBALL?

Temperature

As the planet heats up, so do our courts. The ambient heat becomes more challenging to program our competitions, as temperatures rise. Games will need to be scheduled around times of the day that support heat comfort levels. This may then impact on the way in which we spend our recreation time and plan and play our sport.

Going Indoors

Indoor venues will become more difficult to access as demand increases. Added to this, the ability to efficiently cool the venues will also be challenging for venue operators.

Health

We are also more at risk of heat stress, melanoma and skin conditions that can be caused by higher temperatures and fluctuations in humidity. Our day to day lives will be impacted by extreme weather conditions. We will face challenges in sourcing and growing food naturally as well as the impacts in oceanic ecosystems and impacts to food shortages from the sea.

Rainfall / Drought / Extreme Weather

We've already seen the effects of extreme weather events. This devastation causes massive physical, mental, and financial destruction to communities. In terms of our sport, it could be as inconvenient as limited access to courts. However, it could be as extreme as damage or destruction of our venues and communities - but most importantly our members.

Evaporation, Soil Moisture & Oceans

Our courts are made of solid structures, but even they are not impervious to the structural movement and stress caused by fluctuations in soil moisture and movement.

Sea levels will continue to rise. Acidity and soil erosion will begin to impact the surrounding landscape around the coast of Australia and into sea water tables moving beneath the continent. Infrastructure will again be susceptible to erosion and changes in the constitution of the soil.

SO... WHAT CAN WE DO?

The construction of netball courts although long lasting, can contribute to the urban heat island effects associated when we replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat.

The ways in which we plan, supply, build and operate our venues, can significantly improve our footprint on the environment.

Environmentally Sustainable Design Principals

In accordance with the SEA and EWG alignment, Netball Victoria is committed to embracing a more sustainable future, through greater consideration of how business decisions impact our environmental footprint.

As such, NV's Environmentally Sustainable Design (ESD) principles have been introduced, which can greatly reduce the impact a facility has on the surrounding environment. Utilising these principles is essential to creating a more sustainable environment for clubs, and can additionally create a reduction in operating costs, thus should be considered by all affiliates.

Project teams should consider impacts on landfill through waste and recycling options early in the design process. Allowing additional space for the required options such as additional bins ensures practices can be adopted at completion.

INDOOR STADIUMS & PAVILIONS

Architecture has been improving natural outcomes in our sporting infrastructure for many years. Over the years technology has become sophisticated enough to predict shadowing, airflow, noise, heat, light and glare as well as other natural influences well before construction even begins.

Heating & Cooling

Air Conditioning large stadiums has significant environmental impacts and is one of the areas that projects managers look to achieve significant improvements. This can include airflow and ventilation systems, air fans and efficient cooling systems. We do need to balance the playability of the venue and the use of the venue against the outcomes that can be achieved. Not all stadiums can achieve suitable airflow and cooling to accommodate large crowds without other cooling intervention.

Extracts from *Future Proofing Community Sport & Recreation Facilities*. SEA, SRV

Solar Panels

Creating power efficiencies is becoming part of every project. Where possible, creating energy to supply electricity at venues is a significant savings to stadium managers, owners, users and importantly the environment.

Windows & Natural Light

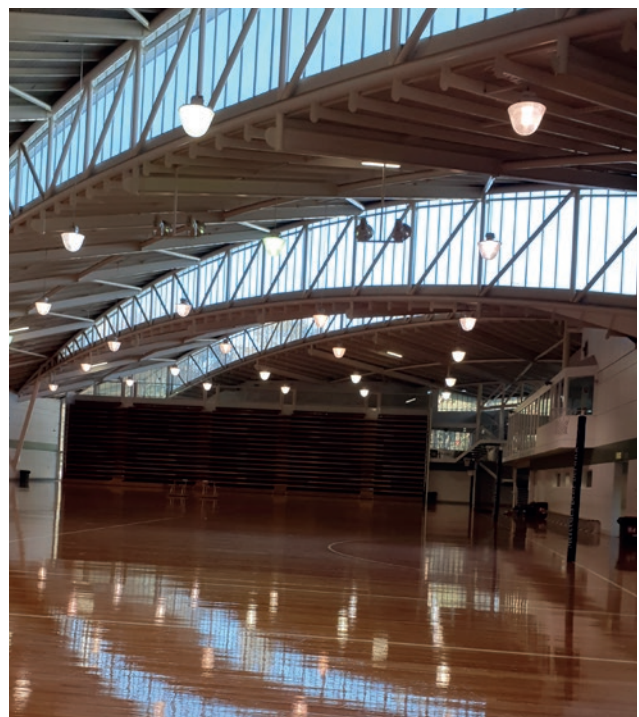
In 1994 Waverley Netball Centre was built, architects used the natural light to influence the design and created wave like rooflines to allow light to enter the stadium and reduce the necessity to utilise artificial lighting. Even today, it's well ahead of its time. Windows can be a huge advantage in stadiums.

Venue Manager Initiatives

Talk to the venue manager about energy initiatives that reduce our carbon footprint.

- If installing own solar panels is not an option, switch energy plan to renewables only
- Review your heating and cooling system, e.g. in offices (+1 degree in summer - less cooling, -1 degree in winter - less heating)
- Turn off lights and stand by electric devices at night (manual or automated), install light sensors

Note: Heat and glare should always be taken into consideration



Above: Waverley Netball Centre at Jells Park

	Resilient Areas	Impact Areas	Mitigation Methods
1	Infrastructure/Venue	Sustainable Sites	<ul style="list-style-type: none"> • Transport: Incentivising public transport use or other no/low emissions travel (cycling, walking) • Reducing transport emissions: Linking facility to cycling/ walking trails • Ensuring supply vehicles and cargo transport is fully maximised (e.g., not sending 1/2 empty trucks to/from sites), and carpooling to matches • Low impact site management: no/low pesticide use • Brown (e.g. reclaimed sites) to green (rejuvenated, repurposed sites): building on brown sites to develop green sites • Landscaping: native species, biodiversity and conservation • Stormwater management: water capture and reuse, efficient irrigation • Heat island reduction: rooftop gardens, minimising parking spaces • Biodiversity & Conservation: consider conservation of native wildlife (e.g., bird boxes, apiaries, etc) community edible gardens, composting on site, tree planting and clean up initiatives
2	Infrastructure/Venue	Efficient Water Use	<ul style="list-style-type: none"> • Plumbing fixtures and fittings: low flow • Water use measurement: submeters meters which measure for specific site use to ensure accurate water management (e.g., too much water being used in submetered area) “solar hot water?” • Water efficient landscaping and sports field management: efficient irrigation, reduction of potable water use, increase use of grey water/non-potable water • Installing water foundains: reducing single use/plastic bottle use
3	Infrastructure/Venue	Energy	<ul style="list-style-type: none"> • Energy best management practices: operating plans; energy performance; energy audits; efficient lighting installation and ongoing upgrades • Commissioning and auditing: calibration, planning with clear objectives • Clean & renewable power sources: solar hot water options, wind, geothermal, on-site solar, battery storage, and electric vehicle charging stations on site (paired with renewable energy source)
4	Infrastructure/Venue	Materials	<ul style="list-style-type: none"> • Smart development: reuse of building material for new development • Infrastructure materials: sources of low impact, low embodied carbon and renewable building materials • Efficient building design: low ongoing resource use in operations, cooling, heating, electrifying



“You cannot get through a single day without having an impact on the world around you. What you do makes a difference, and you have to decide what kind of a difference you want to make.”

— Jane Goodall



Risk Assessment

	Risk Area	Physical Risk	Climate Variable	Adaptation Method	Vulnerability
7	People/Health Risks	Risks to health: Injury caused by unsafe playing surface (degradation of turf)	Increasing average temperatures, reducing average rainfall, increasing evapotranspiration	Variety of grass, greywater and rainwater tanks, efficient water management plans, indoor play	MEDIUM - HIGH (Available adaptation, short-term impact)
8	People/Health Risks	Risks to health: air quality (particulate matter)	Fire weather, reducing rainfall, time in drought	Policies and procedures, air quality monitoring, indoor play	HIGH (Low adaptation, medium-term impact)
9	Organisation Risks	Disruption to events due to extreme weather (i.e. floods/storms)	Increasing frequency and intensity of severe rainfall, Increasing severity of hurricanes, extreme heat, and drought conditions Increasing fire weather	Roof cover/shelter, adequate drainage, back-up venues	LOW (High adaptation potential, medium-term impact)
10	Organisation Risks	Inability to secure affordable adequate water supply	Increasing average temperatures, reducing average rainfall, increasing evapotranspiration, increasing time in drought	Greywater and rainwater tanks, efficient water management and water sourcing plans	MEDIUM (Available adaptation, medium-term impact)
11	Organisation Risks	Decline in interest and participation	Second Tier impact of the above	Marketing, community partnerships, athlete ambassadors	LOW (High adaptation, medium-term impact)

OUTDOOR COURTS

Reducing Heat Island Effect

Geotechnical Assessments

Hard materials such as asphalt and concrete may be reused or repurposed during projects. This not only minimises costs but additional materials required to be sourced as well as the impacts on the environment during transportation of such materials.

As a hard surface pavement, it is important to understand the life cycle of netball courts including movement and maintenance. Not all pavements can be saved particularly when there is major drainage work that is required. However, relocating materials or repurposing at the same site is a great environment savings.

Improvements in Acrylic Paints

There are now new products on the market which can reduce the 'Heat Island Effect' on netball court builds. A prominent company in this space is California Sport, who produce products such as CoolTop playing surfaces which are shown to reduce surface playing temperature by 15%.

Court Colours

While blue colours on court are popular, they are the hottest to play on, due to black pigments in the design. However, CoolTop pigments reflect the heat.

Coming Soon!

Composite Concrete & Asphalt

Bans on the exportation of plastic waste to China and India have impacted the Australian market of recyclable plastic, of which more than 30% was planned for export to China in 2018 alone.

Councils are now exploring composite recycled asphalts and concretes in construction. Early trials are showing great success with roads and footpaths. We are still in early stages of testing for adhesiveness for sports courts, but feel we are very close!

Suppliers: Fulton Hogan's PlastiPhalt and Downer's Reconophalt.

COURT COVERS

Covered courts are now becoming more popular at netball venues and schools. They create all weather sports venues as well as protection from the sun. See our dedicated fact sheet on Covered Courts and Airhalls for more information.



Water / Drainage

Water Sensitive Urban Design

When we replace a greenspace with a hard court we lose permeable surfaces. This adds extra strain on our stormwater systems. Runoff from surfaces can also contain pollutants that eventually reach our water ways, effecting the flora and fauna that make local creeks/rivers and oceans their home. Councils are addressing this is by integrating WSUD principles into the design of larger paved areas including sports courts.

Tanks, culverts, rain gardens, can all form a part of water design, capture, storage and use. Water tanks are becoming staples in club designs as we look at ways of saving water and using recycled and reticulated systems where applicable.





Supporting Infrastructure

Recycled shelters, player benches, taps, other off court equipment can be included as part of infrastructure project improving environmental impacts. Some products contain an average of 90% recycled plastic.

Benefits include:

- Providing shade when off the court and supporting SunSmart policies
- Provides shelter for officials, interchange players & equipment in inclement weather
- Durable, well-designed, and purpose-built structures will last longer, creating a more cost effective and sustainable solution, in the long term
- Diverting more soft plastics from landfill

Lighting

Projects are now using LED instead of Halide Lighting which is much more efficient and environmentally friendlier option.

The use of a Halytech Illuminator is another addition that offers cost effective control, utilising a web interface in order for managers to turn lights off remotely.

Other factors that should be considered by clubs and associations is the consideration of obtrusive light. We should make sure that projects are considering local wildlife and methods to reduce the influence of obtrusive light where possible.

Drink Fountains / Bubblers

Using bubblers at courts to promote accessible drinking water is a great way to reduce the use of single use plastics.

In Australia, bottled water which has a carbon footprint 300 times greater than tap water – installing water refill stations helps to reduce this. Water refill stations can be installed courtside with more players choosing to drink from reusable drink bottles. The environmental effects of bottled water use are extensive. It takes more than 6 litres of water to produce a 1.5 litre bottle of bottled water. The plastic from the bottle takes around 450 years to break down.

OTHER VENUE INITIATIVES

Waste

Reducing waste, recycling and re-purposing around clubs and associations is essential in creating a culture that respects and is motivated towards improving environmental outcomes.

Canteen initiatives to promote recycled containers have been catalysts of change across industry and sport. Understanding the supply chain and what we supply in our canteens to sell, goes a long way in promoting great practices and internal processes as well as huge reductions in waste.

Zoos Victoria has been instrumental in driving change in this space.



Uniforms & Runners

Who is your supplier? Do they have sustainability at the forefront of their manufacturing process? Look at a second life for your netball apparel such as www.gameonrecycling.com.au Game on recycling. How can you get the most out of everything that you supply and on-sell.

Recycling

Victoria is banning single use plastics on 1st Feb 2023. Does your club/association have any balls, equipment or supplies that can be utilised by another organisation or not for profit locally or internally? Think about a second life for your pre-treasured club or association possessions.



Canteen

Run a health check on your Canteen. Is it efficient? Is the equipment efficient and can anything be upgraded to improve environmental outcomes. What about the supply chain? Who are you buying from? Are they environmentally friendly? What are you buying? Is it environmentally friendly? How are supplies stored? Is there waste and why? Is the club over-ordering?

Minimise food waste where possible. If you are hosting a large event, talk to local charitable food organisations that collect food to divert from landfill such as Ozharvest.

Office Practices

Have you all gone paperless? Or are you still printing out score sheets, fixtures, minutes etc. How can your office environment be more efficient?

Influence and promote targeted behaviour that becomes a default, e.g. if you have to print, do it double sided and change the default setting on each computer accordingly.



Reference: *Future Proofing Community Sport & Recreation Facilities*. SEA, SRV

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EDUCATION & PROMOTION OF THE ENVIRONMENT

Annual Audits

Check your environmental impacts annually. Innovation and environment safe options improve every year. Check your utility invoices and source better options if available. Walk around your facility consciously and list all your areas of impact, discuss ideas how to lower your impact in each.

Green Teams

Does your young community have Environment front and centre? How about creating a green team that helps look after your local community?

- Promote environmental awareness
- Evaluate your impact
- Make change happen – have an impact
- Promote sustainable change
- Share your success



ZOOS VICTORIA – CASE STUDY

Zero Carbon, Solar Trees, Water Systems & Expanding Recycling Systems

We are already the first zoo to achieve carbon neutral certification.* Our residual carbon is offset in areas that have high eco-benefits in biodiversity protection and conservation as well as community development.

We are continually improving our day-to-day practices, and work to be gentle on the planet. Our 2019–24 Environmental Sustainability Investment Prospectus is our second five-year action plan that will further cement our position as leaders in sustainable practices. We welcome support from funding partners as we continue the fight against extinction.

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