Sustainable Living *Guide*

Shire of MUNDARING

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Acknowledgement of Country

Mundadjalina-k ngala kaditj Noongar moort nidja Wadjak boodjar-ak kalyakool moondang-ak kaaradjmidi. Ngala Noongar Moort wer baalabang moorditj kaadidjiny kootadjinanginy. Ngala Noongar wer Torres Strait Moort-al dandjoo koorliny kwabadjinanginy. Koora, yeyi wer kalyakool, ngalak Aboriginal wer Torres Strait birdiya wer moort kootadjinanginy.

Shire of Mundaring respectfully acknowledges the Whadjuk people of the Noongar Nation, who are the traditional custodians of this land. We acknowledge Elders past, present and emerging and respect their continuing culture and the contribution they make to the region.

Contents

Introduction

Welcome to the Shire of Mundaring Sustainable Living Guide, a resource designed to help you explore practical ideas for living more sustainably.

Why live sustainably?

Sustainability means meeting the needs of current and future generations by integrating environmental protection, social advancement, and economic prosperity. Living sustainably is not about sacrifice, it benefits the environment, reduces waste, lowers energy and water consumption, and improves your financial situation. It also promotes personal well-being and strengthens community connections.

Getting started

Embarking on a sustainable lifestyle journey doesn't have to be overwhelming. You don't need to implement every action at once, start with what feels achievable. Small, incremental changes add up over time and create a significant impact. Build on your progress and aim for further actions in the future.

About this guide

This guide provides information to help you get started and connects you to more in-depth resources. We've included simple habit tips that only require behaviour changes, along with guidance for those interested in investing in improved efficiency and more elaborate sustainability strategies. Where possible, the information is tailored to the Shire of Mundaring.

Updated versions of this guide will be released based on community feedback. If you'd like to share suggestions for future editions, please contact the Shire of Mundaring Environmental Sustainability Team via environment@mundaring.wa.gov.au

Building a resilient future

Our world faces challenges, but our community has an incredible opportunity to create a cleaner, healthier, and more resilient future. By reducing reliance on fossil fuels, cutting emissions, conserving water, and minimising waste, we can protect our environment and improve quality of life for everyone.

Why it matters

Taking action now helps us be prepared and resilient in the face of shocks and stressors. Shocks are sudden, short-term events that disrupt normal life, such as bushfires, health emergencies, economic downturns, or infrastructure failures. Stressors are ongoing challenges that build over time, like climate change, rising energy costs, housing affordability issues, rising social inequality and persistent political instability/conflict. These can make shocks harder to manage if we're not prepared.

Living more sustainably helps individuals and communities cope with these pressures while achieving positive environmental changes, social progress, and financial security.

Local perspectives

The impacts of shocks and stressors can differ between the foothills, hills and rural communities of the Shire of Mundaring. By taking proactive steps that suit your situation, location and lifestyle, we can reduce risks and build a stronger, more connected community.

Energy

One of the most critical aspects of sustainable living is reducing energy related emissions and switching to renewable energy sources. Implementing energy efficiency and renewable strategies will decrease your emission, lower your electricity bills, contribute to a cleaner environment and create greater energy independence.

Saving energy at home

Saving energy habits

- Turn off lights and appliances when not in use.
- Turn off appliances at the wall when not in use to avoid using 'standby power'.
- Wash clothes on cold and dry them outdoors instead of using a clothes dryer.
- When possible, avoid using appliances during the peak electricity demand period of 3pm to 9pm.
- If you have solar panels installed, try and run appliances during the maximum solar generation window of 9am to 3pm by manually using appliances or set times to run appliance.
- Learn how to read and understand your energy bill and/or solar generation data.

Energy efficiency home improvements

- Seal draughts around windows and doors frames to block unwanted air leaks through gaps.
    - Read Renew's draught sealing buyers guide
- Insulate walls, ceilings, and floors with natural, recycled, or sustainable materials.
    - Read YourHome insulation information
- Use awnings, shutters, heavy curtains, blinds, cellular shades and/or film to shade or insulate windows. This keeps heat out during summer and keeps heat in during winter for maximum energy efficiency.
    - Read Renew's high-performance curtains and blinds guide
- Switch to energy-efficient LED lighting.
- Consider setting timers or install automatic motion sensor lighting for seldom-used rooms such as outdoor areas, garages/carports, pantries, walk in robes and sheds to avoid accidently leaving lights on for extended periods.
- Install ceiling fans throughout the living areas and bedrooms. Installing and using DC motor ceiling fans with 'reverse mode' is a quite option which offers air circulation benefits in both summer and winter to help reduce air-conditioner and heater use and costs.

For more tips check out Switch Your Thinking's Energy efficiency: our top 50 tips to save energy.

Seasonal energy efficiency

Coping with seasonal conditions can create intense energy consumption. Here are some tips for staying comfortable while reducing energy consumption during summer and winter.

Summer	Winter
• Keep blinds shut where possible to prevent heat from getting in. • Keep doors closed where possible to prevent cool air from escaping and warm air entering. • Close doors to unused rooms to cool spaces more efficiently. • Where appropriate, use smaller, more efficient appliances, for example using a microwave rather than an oven. • Use fans instead of air conditioners when you can as fans use less energy. • Set air conditions to 24°C. It might not sound that cool, but when the air temperature reaches the high 30s and 40s outside, 24°C can feel more than comfortable inside. Remember to turn air conditioners off when you leave the house. Behaviour • Dress for the weather by wearing light clothing made of natural fibres such as cotton, linen or bamboo. Ensure your attire is sun safe when outdoors. • Cool yourself first before cooling the space. Stay hydrated and take quick cool showers. Try a splash of water on your neck, a damp towel on your forehead or a cool ice pack to cool your body. • Plan your day to avoid outdoor activities during the hottest part of the day. Cook outside or use cooking appliances that don't heat up your home. In the evening, open windows to let in cooler air. For more information see the Summer energy savings guide.	• Open blinds when the sun is shining to use free heat from the sun where you can. Remember to close them before it gets dark. • Keep doors closed where possible to prevent warm air from escaping and cool air entering. Use a draught snake to block warm air from escaping under doors. • Close doors to unused rooms (like bathrooms, or the bedrooms during the day) to heat spaces more efficiently. • Keep the internal temperature of your heating set between 18°C and 20°C. Every degree you increase your heating can add between 5 to 10% to your energy costs! Behaviour • Heat the person not the space by dressing in warm clothing, including layering and tucking in your garments. Use a hot beverage (even just hot water) to help warm up. • Avoid using hot showers to get warm. Heating hot water can account for over 20% of household energy use. Try to avoid the temptation of using a long shower to get warm. • Use a 'solar' clothes dryer. Even during the winter months there are plenty of sunny and fine days. Use free energy from the sun and wind to dry your clothes when you can rather than always opting for the dryer. For more information see Winter energy saving guide.

Kitchen energy efficiency tips

The kitchen is one of the most power-hungry areas of the home and can affect indoor comfort. Adopting efficient cooking and refrigeration practices can significantly reduce energy use and costs.

Seasonal cooking habits

- During summer cook outdoors on a BBQ, use a portable induction cooktop outdoors, or try a solar oven to keep heat out of the house. Solar ovens are cost-free to run and highly effective in summer.
- In winter opt for oven cooking or benchtop slow cookers to create a warm, cozy atmosphere.

Energy efficient cooking practices

- Use smaller appliances such as microwaves, air fryers, slow cookers, and pressure cookers for small meals. They consume less energy than a large oven and are ideal for smaller households.
- Only boil the amount you need in the kettle. More water means more energy required to reach boiling point.

Oven efficiency

- Keep the oven door closed to prevent heat loss.
- Batch cook multiple items at once or in succession to maximize preheating.
- Preheat only as long as necessary, avoid premature or extended preheating.

Stove and cooktop efficiency

- Use lids as covered pots and pans to trap heat and cook faster.
- Match your pan and cooking zone. For example, a small pot on a large burner wastes heat, ensure you use the right size.
- Keep your cooktop clean as burnt food absorbs heat, reducing efficiency.
- Use residual heat by turn off heat a few minutes early; retained heat will finish cooking.
- Check gas flames as a blue flame indicates efficient burning while yellow flames mean inefficiency.

For more information check out AGL Energy efficient ways to cook.

Refrigeration tips

Fridges, freezers, and bar fridges run 24/7, making them major energy consumers. Here are some practical ways to reduce their impact.

- Minimise door openings: keep doors closed as much as possible to maintain efficiency.
- Switch off second fridge: if you have a drinks fridge, turn it off when not needed.
- Optimal location: position fridges away from heat sources and ensure good airflow. Avoid placing them against walls that heat up during the day.
- Ensure ventilation: allow at least 75 mm clearance on each side and space at the top for airflow.
- Set correct temperatures: keep your fridge between 3°C and 5°C, and your freezer between –15°C and –18°C.
- Use a thermometer: check temperatures regularly and adjust settings as needed.
- Replace worn seals: test with a business card, if it slips out, the seals need replacing. A fridge maintenance professional can fit new seals to prevent cool air leaks.

Energy Efficiency Rating

When replacing appliances or lighting, choose products with a high star rating on the Energy Rating Label to reduce energy use and running costs. The label helps you compare the efficiency and estimated operating costs of different models. When purchasing appliances and lighting such as fridges, freezers, washing machines, dryers, dishwashers, computer monitors, televisions and fixtures such as ceiling fans and air conditioners select the size and features you need first, then use the star rating to choose the most efficient option.

Explore the following for more information and calculators to compare models.

- Department of Climate Change, Energy; the Environment and Waters Appliance guide
- Australian Government's Energy Rating Consumer Appliances
- Australian Government's Energy Rating Calculator

Electrify Everything

The Electrify Everything movement encouraging households, community groups, and organisations to replace fossil fuel powered systems with clean electric alternatives. The goal is to electrify every energy flow currently powered by fossil fuels, including in buildings, transportation, and manufacturing.

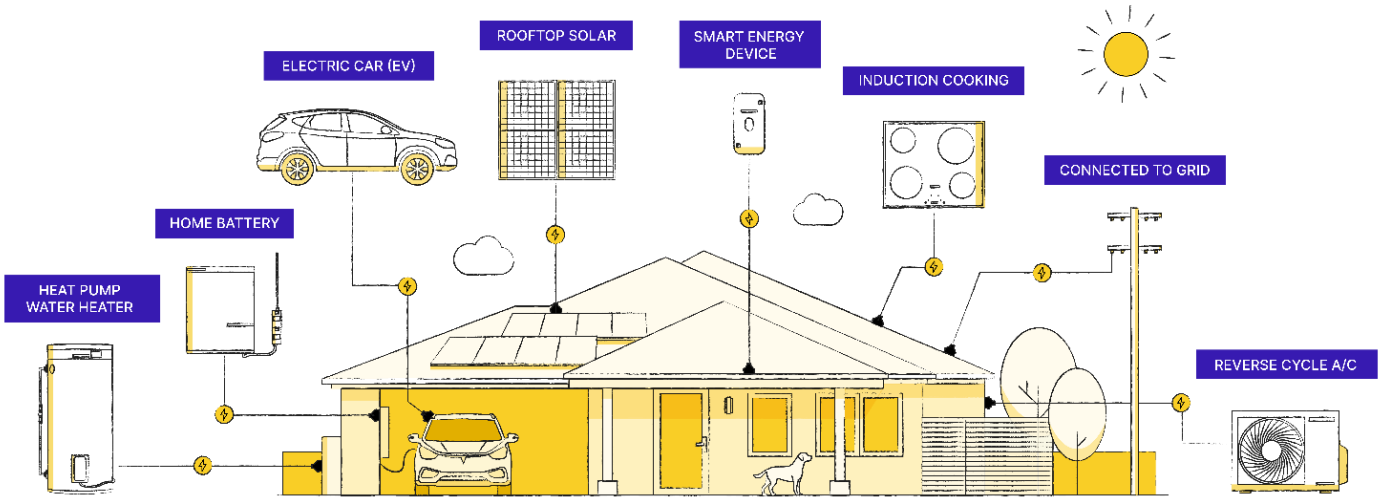
By making this switch and powering it with renewable energy, especially Australia's abundant solar resources we can:

- reduce household energy bills,
- create healthier homes by eliminating indoor air pollution from gas,
- lower emissions to take climate action,
- build resilient communities and a fairer energy system for everyone.

Features of an electric home

- Space Heating: upgrading gas heaters to reverse cycle air conditioning
- Water Heating: upgrading from gas hot water systems to electric heat pump systems
- Cooking: upgrading gas stovetops to induction cooktops
- Vehicles: transitioning to electric vehicles (with home charging)
- Solar Panels: installing rooftop solar systems
- Battery Storage: adding home batteries to store solar energy

Electrified Household



Source: Electrify Everything.

Community organisation leading the way that have wealth of resources available to the community.

- Electrify Everything
- Rewiring Australia
- Renew's Getting Off Gass Toolkit

Electric induction cooktops

Electric induction cooktops are becoming a popular benchtop cooking option because they use less energy, are cheaper to run, faster, healthier, easier to clean, and better for the climate compared to traditional electric or gas cooktops.
Explore the following resources to understand how to transition to an electric induction cooktop.

- Rewiring Australia's Cooktops Snapshot
- Choice's What to consider when switching from gas to induction

Water heating

Water heating habits

Water heating account for 20% of energy use in average Australian household. Try the following tips to ensure your water heating system is performing efficiently.

- Don't leave hot water running when not in use.
- Take shorter showers and ensure you have water-efficient shower head.
- Insulate the pipes coming out of your hot water system with pipe insulation.
- Ensure your thermostat setting on your hot water system are suited to your household needs.
- Fix any hot water leaks as soon as possible.

Water heating electric options

Replace your gas hot water system with an electric or solar alternative, such as an electric heat pump hot water system. Start planning early, so you are prepared if your current system fails. If your unit is nearing the end of its life (typically 8–10 years), begin researching heat pump options and costs early to make the transition smoother.

For more details, explore Rewiring Australia's Water Heating Snapshot

Space heating (and cooling)

There are several options for heating and cooling that use different fuel sources. The Electrify Everything approach recommends installing a reverse cycle air conditioner (heat pump), a highly efficient appliance that can both heat and cool your home. Reverse cycle air conditioning can be single unit (cheapest to run), multiroom units or ducted and are 3 to 4 times more efficient than electric heater or a gas space heater.

When choosing a reverse cycle air conditioner:

- select an appropriately sized unit for your space,
- look for the highest energy efficiency rating,
- ensure it includes peak smart ready technology for optimal performance.

For more details, explore Rewiring Australia's Space Heating Snapshot**.**

Renewable energy

Renewable energy harnesses natural systems, most commonly the sun and wind, to produce electricity and heat water. Australia's strong solar resources make it a global leader in solar power, particularly in rooftop photovoltaic (PV) solar installations. Many Western Australians already benefit from clean, affordable energy generated by rooftop solar. As of February 2026, an estimated 57% of homes in the Shire of Mundaring have photovoltaic systems installed.

If you're unable to install renewable energy systems at home, you can still reduce your environmental impact by choosing a GreenPower option. Providers such as Synergy offer green energy options where your electricity is sourced from renewable energy. By opting in, you not only power your home with clean energy but also support continued investment in renewable infrastructure and help reduce Australia's overall carbon footprint.

Rooftop solar

Installing rooftop solar is one of the most effective ways to reduce household emissions and achieve significant bill savings, particularly when electrifying your home. For maximum efficiency, position your solar photovoltaic (PV) system and solar hot water system (HWS) on a north-facing roof to capture sunlight throughout the year. You can use the SunSPOT tools to map your roof to get an indication of the size and energy generation of a potential solar system. Professional installers can use computer modelling to determine the optimal panel placement and provide an estimate of expected energy generation during the quoting process. It is recommended to install a system of sufficient size to meet your peak daytime energy use. Exceed this size if you intend to add a home battery to your system.

Monitoring your solar system is important to track production, consumption, and grid import/export in real-time to manage and optimize your systems. Many inverters manufactures offer apps. It is best to discuss monitoring app with your professional installer as you select your system.

Load shifting or demand management focuses on when energy is used and is an important behavioural aspect of maximising the efficiency of a solar system. For households who are not at home during the day the highest energy use often occurs during peak use periods in the morning and evening, which are also the most expensive periods. It is recommended that you shift all possible non-fixed or optional power use (e.g. dishwasher, washing machine, pool pumps, hot water or temperature control) to operate during peak solar production periods, generally between 9am and 3 pm daily.

By incorporating an appropriately sized PV system tailored to your home's needs, you can substantially offset your energy demand and enjoy long-term environmental and financial benefits.

For more details, explore Rewiring Australia's Rooftop Solar.

Home battery storage

Battery technology has advanced significantly over the past decade, becoming more efficient and affordable. Installing a home battery system to complement rooftop solar offers several benefits.

- Reduces running costs by lowering energy imported from the grid, especially during peak periods.
- Cuts emissions by storing renewable energy for use at night or during low solar production times.
- Can be set up to provide backup power during grid outages, providing greater energy resilience.
- The combination of rooftop solar and battery supports the energy transition making households an important part of Australia's evolving energy infrastructure.

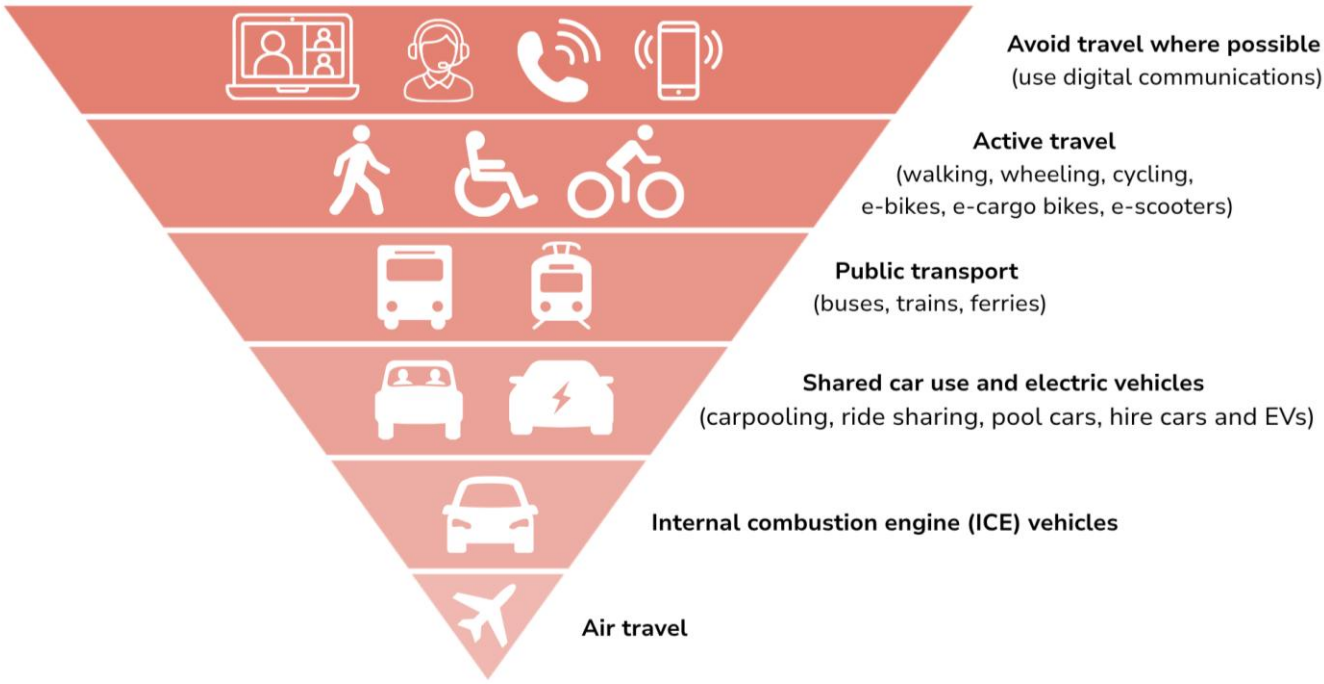
As of 2025, the Federal and WA state governments offer rebates for residential, small business, and community facilities. Quality installers should outline these incentives during the quotation process.

For more details, explore Rewiring Australia's Home Battery Snapshot.
You can explore possible solar and batteries option using the SunSPOT tools.

Sustainable transport

The sustainable transport hierarchy prioritises the most environmentally friendly travel options first, helping reduce emissions and congestion. It ranks human-powered movement and public transit above private vehicles, from most to least sustainable. In the Shire of Mundaring, where the foothills, hills, and rural communities vary in public transport availability and travel distances, apply the hierarchy in a way that suits your location and lifestyle. Here's how it works.

Sustainable transport hierarchy



Adapted from Energy Saving Trust and NHS England.

1. Digital communication

Before travelling, ask yourself if the trip can be avoided. Using digital tools such as banking apps or video calls can eliminate unnecessary journeys. If your work allows, consider remote or hybrid work arrangements.

2. Active travel

For short trips, choose walking, wheeling, cycling or scooting instead of driving. Electric scooters and e-bikes are great low-impact alternatives for distances that are a bit too far to walk. These travel options produce zero or very low emissions and are ideal for suburban areas and village communities where trip distances are manageable.

For more details, explore Switch Your Thinking's Electric Bikes guide.

3. Public transport

When active transport isn't practical, use buses or trains when available. Public transport significantly reduces carbon emissions compared to single-occupancy cars. A full bus takes up far less road space and produces fewer emissions than dozens of individual vehicles. While services may be limited in some areas, you can advocate for improvements to make public transport more accessible.

4. Shared car use and electric vehicles

Sometimes vehicles are necessary, but you can still reduce your impact by adopting smarter habits.

- Carpool with friends, family, or colleagues to cut down on single-occupancy trips.
- Consider whether your household really needs two cars, and if possible, utilise pool vehicles at work to avoid unnecessary commuting. Maintain your vehicle regularly and keep tyres inflated to maximise fuel efficiency.
- When purchasing a car, choose a fuel-efficient, hybrid, or electric vehicle (EV). Investing in an EV with a home charging station is a great way to reduce emissions, and you can also advocate for the expansion of EV charging infrastructure in your community.

5. Internal combustion engine (ICE) vehicles

Private vehicles with single-occupant trips sit low on the hierarchy because they produce high emissions and contribute to congestion. If you must drive, combine errands into one trip and avoid unnecessary travel.

6. Air travel

Flying is one of the most carbon-intensive ways to travel and contributes around 2.5% of global carbon emissions. Its impacts extend beyond CO_2, with water vapour, NOx, sulfur dioxide and soot forming contrails and ozone that trap heat and amplify warming. Air travel can also affect noise levels and local air quality. Choosing local travel and simply exploring our region can significantly reduce your environmental impact. Local trips often cost less, offer new opportunities to discover the places around you, and help support local communities. Every time you opt for a nearby adventure instead of flying, you're taking a meaningful step toward a cleaner, healthier future.

Electric vehicles

Internal combustion engine (ICE) vehicles

Traditional vehicles run on petrol or diesel using an internal combustion engine (ICE). These vehicles rely entirely on fossil fuels and produce tailpipe emissions.

Hybrid electric vehicles (HEVs)

Conventional hybrid electric vehicles (HEVs) were the next major development in electric vehicles. These vehicles use a petrol engine supported by an electric motor but cannot be plugged in. Instead, the battery is charged through regenerative braking and the petrol engine itself. Hybrids typically offer around 20-30% lower fuel use compared to equivalent petrol vehicles, reducing emissions but not eliminating them, as they still rely on fossil fuels.

Plug-in hybrid electric vehicles (PHEVs)

Plug-in hybrid electric vehicles (PHEVs) combine an electric motor with a petrol engine and can be charged from an external power source. They can drive short distances using electricity alone, switching to petrol once the battery is depleted. While PHEVs can help bridge range or usage gaps, their added complexity and only partial emissions reduction mean they do not deliver the full environmental and financial benefits of fully electric vehicles.

Battery electric vehicles (BEVs)

For most light passenger vehicles, SUVs and many light commercial vehicles such as vans and general-use utes, battery electric vehicles (BEVs) are emerging as the preferred technology. BEVs run entirely on electricity stored in batteries and produce zero tailpipe emissions. They generally have lower running and maintenance costs due to fewer moving parts and no need for oil changes. Driving ranges continues to improve, with 300-500 kilometres now common in new models, making them suitable for most everyday travel needs.

Summary of different types of vehicles

Vehicle type	Energy source	Consumption	Tailpipe emissions
Internal combustion engine (ICE)			
Hybrid electric vehicles (HEVs)			
Plug-in hybrid electric vehicles (PHEVs)			
Battery electric vehicles (BEVs)			

Adapted from EN Plus Tech and Institute for Sensible Transport

Considering lifecycle emissions

When comparing vehicles, it's important to consider lifecycle emissions, including manufacturing, use and end-of-life. Electric vehicles generally have higher emissions during manufacturing, these are typically offset over the lifetime of the vehicle through significantly lower operational emissions, particularly when charged using renewable electricity.

For more information explore:

- Australian Government's Types of electric vehicles explained
- Synergy's Types of electric cars: An EV buyer's guide
- Rewiring Australia's Electric Vehicle Snapshot
- Climate Council Hybrid and Battery Electric Vehicle Comparison

As of 2025, more than 410,000 Australians drive electric vehicles (EVs), representing a significant increase in uptake over recent years. Range anxiety was a barrier in the early stages of adoption, however expanded charging infrastructure and improved driving range in newer models have accelerated uptake, particularly in urban and semi-urban areas.

Although EV uptake in Australia remains lower than in some other developed countries, it is expected to continue rising as charging infrastructure expands, a wider range of more affordable models becomes available, and the second-hand EV market grows.

Around 80% of EV charging in Australia occurs at home, making residential charging a key part of the transition to electric transport.

There are several things to consider when deliberating about an electric vehicle for your household.

- Charging: home charging infrastructure, public charging infrastructure, socket types, charging speeds.
- Battery range and driving habits: daily needs v max range, factors affecting charging, battery types.
- Cost and financial incentives: upfront costs, new or used, leasing, incentives and rebates, insurance costs, maintenance.
- Vehicle selection and feature: size & body features, performance, technology lifestyle, commuting/driving habits, size/style.

For more information about getting your home ready for an EV, explore Synergy's Guide to an EV ready home" for EV owners.

For finding EV charges, explore Synergy's WA EV Network or find public charging stations using apps like PlugShare.

If this is an area of interest to you recommend watching the Switch Your Thinking video Understanding Electric Vehicles and Home Charging as a localised starting point.

The Australian Electric Vehicle Association and Electric Vehicle Council have a range of information available about electric vehicles.

Water

Water conservation

The need for water conservation is highlighted by decreasing rainfall and droughts in South West WA. Reducing water use is a key part of sustainable living, helping protect nature and conserve valuable resources.

Water saving habits

- Follow water restrictions and allocated watering days and recommended sprinkler run times.
- Use a trigger hose so you can choose the most suitable spray setting and avoid wasting water.
- Water plants during cooler times of the day (ideally early morning) to minimise evaporation.
- Collect rainwater in a rain barrel or rainwater tank for outdoor watering**.**
- Only use the washing machine and dishwasher when you have full loads.
- When washing dishes by hand, use a full sink instead of a running tap.
- When washing fruit and vegetables, use a full sink instead of a running tap.
- Sweep your driveway instead of using a hose.
- Wash your car with a bucket instead of a hose, ideally on the lawn to save water and make use of runoff.
- Use the half flush on the toilet.
- Try using a shower timer or pick your favourite song under four minutes from the Water Corporations Spotify playlist to put on when you shower.
- Take a 'navy shower' by turning the water off when soaping, shampooing or shaving.
- Turn tap off while brushing your teeth.
- Try bucketing, collecting cold water in a bucket while you are waiting for the shower water to warm up then pouring the water on the garden when you are finished. Make sure to use a bucket which is of a manageable size.
- For Summer, keep a jug of cooled drinking water in the fridge instead of running the tap until water is nice and cold.

Water efficiency improvements

- Fix leaky taps and toilets.
- Choosing a front-loading washing machines uses less water than a top loader.
- Install Waterwise fixtures and fitting such as low-flow showerhead, dual flush toilet.
- Install single level mixer taps, as it allows you to find the right balance of hot and cold water quickly, reducing wasted water.
- Invest in a pool cover.
- Install a greywater recycling system for use in toilets and gardens.
- Consider rainwater harvesting.

WELS Rating

The Water Efficiency Labelling and Standards (WELS) Scheme is a national water rating label that helps you choose water-efficient household fixtures and appliances that save both water and money. Always look for the highest star rating possible.

Below are the Water Corporation's recommended minimum WELS ratings for common household fixtures and appliances, and an example Water Efficiency Label.

Product	Minimum WELS rating	Water use (L/min or L/flush)
Shower	4	<7.5
Basin taps	6	<4.5
Kitchen taps	4	<7.5
Laundry taps	4	<7.5
Cistern for water closet (full)	4	4.5
Flushing device for water closet (full)	4	3
Cistern or flushing device for urinal	6	<1
Kitchen rinsers	6	<4
Dishwasher	4.5	<3

The top of the water rating label, the star rating shows the water efficiency of the product, the more stars, the more water efficient the product is.
Use the star rating to compare the water efficiency of different products at a glance.

The middle section of the label shows the amount of water used by the product. Details of consumption rate displayed on the label vary by product type. Use these figures to estimate and compare how much water the product will use.

At the bottom of the label, you can find the registration and product information.
This includes:

- company that registered the product
- licence number
- standards that guide how products are tested.

Explore the Australia Government's WELS product Register.
For more details, explore Water Corporation's Waterwise Water Saving Products.

Waterwise outdoors

Pools and spas

Installing a pool blanket (pool cover) or spa cover is one of the most effective ways to prevent water evaporation. The blanket/spa cover should cover the pool/spa whenever it is not in use. This helps reduce water and chemical loss, lowers cleaning time by keeping dirt and leaves out, and can also make the water warmer and more comfortable for swimming.

Learn more about reducing pool evaporation from the Water Corporation's How to reduce pool water evaporation.

Waterwise gardens

- Plant local native or waterwise species. The Shire of Mundaring Landscape and Revegetation Guidelines provide in depth information about appropriate species selection and landscaping guidance for the local area.
- Minimise grass or turfed areas and, if planted, choose a water-wise lawn variety.
- Let your lawn grow a bit longer in summer to protect roots and reduce evaporation.
- When practicable, reduce the number of pot plants, as pot plants use more water than plants in the ground.
- If you need to hand water, aim the water at the base of the plants where the roots are rather than the leaves.
- Irrigation:
    - Install an effective irrigation system, ensuring you are watering only the garden not roads, driveways and pavement.
    - Waterwise irrigation to the garden should be subsurface, low-flow trickle and set-up with a controlled timer.
    - Use drip irrigation where possible, as this is the most efficient form of irrigation.
    - Use hydrozoning in your garden layout. This approach groups plants that need the same amount of water together in your garden for maximum water efficiency.
    - Know how to program your irrigation system so you can:
        - water on allocated watering days,
        - water before sunrise in summer months,
        - set sprinklers for correct run time,
        - seasonally adjust your irrigation and
        - turn off your irrigation when rain is forecasted.
- Improve your soil as adding clay and organic matter which will improve its structure to help it retain water and nutrients.
- Protect soil by adding a layer of mulch to reduce evaporation.

Explore the Water Corporations guide for creating a waterwise garden.

Caring for waterways

Your garden habits can play a big role in maintaining or improving local water quality. Water that drains from your property into stormwater drains or garden soil eventually flows into local waterways and groundwater aquifers. The Shire of Mundaring sits at the top of the catchment for waterways that drain into the Swan and Canning Rivers, so it's important to take responsibility for the quality of water we send downstream.

Why it matters

Fertilisers are high in nutrients such as phosphorus and nitrogen. When these wash into stormwater drains, they can enter rivers and the ocean, causing toxic algal blooms that harm aquatic life and lead to fish deaths. Phosphorus can also seep into groundwater, which forms much of Perth's drinking water supply, posing a serious problem.

Simple actions to protect waterways

- Minimise lawn areas: reduce lawn space and grow local native plants instead of exotics. Natives require less fertiliser and water.
- Apply fertiliser sparingly: use fertiliser only in spring or early autumn, when plants can absorb nutrients effectively.
- Choose natural alternatives: replace chemical fertilisers with compost, soil improvers, and worm castings for a healthier garden and environment.

Rainwater harvesting

Collecting and using rainwater increases water security and can help offset rising water costs. Rainwater that would normally run off your roof into a soakwell can instead be captured from gutter downpipes and reused for household needs. In the Shire of Mundaring, collecting rainwater is essential in areas where scheme water is not available. In these locations, properties with a dwelling must install a water tank with a minimum capacity of 120,000 litres. A Shire of Mundaring building permits are required for any water tank with a volume greater than 5,000 litres.

Planning your system

Planning to install a rainwater tank during the early design stages of your home build or renovation is ideal, as it allows for the correct plumbing and pipework to be incorporated from the outset. There are several important factors to consider when planning your rainwater system.

- Maximise roof catchment: not all roof areas may connect easily to a tank, depending on gutter and downpipe layout.
- Intended use: decide how rainwater will be used.
- Tank size and location: ensure space and access. As a guide, 1 mm of rain on 1 m² of roof equals 1 litre of water. Use tools like Tankulator to calculate optimal tank size.

It is important to note rainwater harvesting may not be suitable for homes with asbestos roofs or lead flashings, as these can contaminate water. In Perth, over 80% of rainfall occurs between May to October, so supply longevity depends on tank size.

System essentials

- Mesh filter & first flush diverter: prevent leaves and debris entering the tank and divert the initial runoff that cleans the roof surface.
- Leaf catcher: should prevent leaves entering the tank to help maintain water quality. I will need to be regularly cleaned and maintained.

Tank types

- Above-ground tanks: common and available in wide range of sizes.
- Bladder tanks: flexible tanks installed under floors or decks.
- Underground tanks: heavy-duty tanks for burial; more costly in rocky hill soils but easier in sandy foothills.

Water use & safety

- Use a licensed plumber to connect the system and prevent backflow into scheme water.
- It is recommended you monitor your rainwater supply and arrange regular maintenance of the whole system from roof to tank to tap to reduce the risk of contamination.
- Follow the Department of Health water tank guidance.

Effluent disposal systems

Septic systems, alternative toilets and greywater systems are all types of effluent disposal systems. Where sewer connection is not available, an approved effluent disposal system must be installed. The Department of Health is responsible for approving the types of onsite effluent disposal systems permitted in Western Australia. The Shire of Mundaring Health Services Team provide approval for the installation of approved types of effluent treatment and disposal systems.

Conventional septic systems

Primary treatment systems (also known as septic tanks, conventional systems or standard systems) incorporate two septic tanks (this may be a single, baffled tank if using plastic) and two leach drains. The septic tanks digest all solid and liquid wastes to a primary standard which is discharged into the ground via leach drains.

Secondary treatment systems

Secondary treatment systems (formerly known as aerobic treatment units or ATUs) function like small treatment plants. They produce effluent of a secondary standard which can be used for irrigation. These systems are required to be serviced regularly (usually quarterly) by an authorised service provider.

Alternative toilets

Alternative toilets, include waterless or composting toilets. When applying to use an alternative toilet, the application process is the same as for an effluent disposal system through the Shire. The proposed system must be one that is on the list of approved waterless toilets on the Department of Health website.

Greywater systems

Greywater is the wastewater from showers, baths, handbasins, washing machines, dishwashers, kitchen and laundry sinks. It does not include toilet waste. Water can be recycled and reused at home by using a greywater system. Greywater system must be one that is on the list of approved greywater systems on the Department of Health website. There are two types of greywater reuse systems in WA.

- **Greywater diversion devices (GDD)** divert greywater without storage or incorporates a hand activated switch or tap to divert the greywater to the garden or the sewer.
- **Greywater treatment systems (GTS)** collect and treat the greywater to a higher standard. Treated greywater that is not disinfected may only be reused via subsurface irrigation. Disinfected greywater can be used for surface irrigation, toilet flushing and cold-water supply to washing machines.

Habitat

Our habitat is the environment in which we live, from our homes and gardens to the surrounding landscape. Creating liveable spaces included creating connection with nature to support physical and mental wellbeing, encourages sustainability, and strengthens local biodiversity.

Inside the home

Simple choices inside the home can improve comfort, health and environmental outcomes.

- Choose safer cleaning products: use chemical-free and sustainably sourced cleaning products to improve indoor air quality.
- Maximise natural light and ventilation: good natural lighting and airflow helps keep homes comfortable while reducing energy use.
- Choose sustainable furnishings: select furniture made from sustainably sourced timber, renewable materials or recycled products, or consider restoring and reusing furniture.

Indoor-outdoor living

Making better use of outdoor spaces can increase living areas and encourage healthy, active lifestyles.

- Utilise outdoor space: much of the Shire of Mundaring enjoys a pleasant climate for many months of the year, making indoor–outdoor living both practical and enjoyable.
- Create easy access: design direct, practical access between indoor and outdoor areas to strengthen connectivity.
- Support active lifestyles: connected indoor–outdoor spaces are more likely to support activities such as walking, cycling, gardening and outdoor recreation.
- Plan with purpose: design outdoor spaces and gardens to suit how you want to use them, your household's needs and accessibility/safety requirements.

Key considerations improving outdoor spaces may include:

- waterwise gardening (please see page 23)
- firewise gardening
- food gardening
- supporting biodiversity.

Food gardening

Growing food at home improves food security and strengthens your connection to nature.
Here are some simple ways to get started.

- Plant a vegetable and herb garden close to the kitchen for easy access and regular use.
- Use raised garden beds to improve accessibility, especially for people with limited mobility.
- Use the Mundaring Seed Library, located at Mundaring Library, which offers free, locally collected organic, heirloom and native seeds for Shire of Mundaring community.
- Grow fruit trees such as lemons, apples and olives as they provide fresh produce as well as seasonal shade and cooling benefits.
- Adopt a permaculture approach to create a sustainable, low-maintenance and largely self-sufficient ecosystem. This method supports increased biodiversity, improves soil fertility through composting, conserves water, encourages natural pest control using beneficial insects, and reduces long-term labour.

Supporting biodiversity

Urban gardens and rural properties can play an important role in supporting native plants and animals.
Here are some simple ways to create wildlife-friendly spaces.

- Create habitat: include a variety of plants to provide food, shelter and protection for local wildlife.
- Retain natural bushland: preserve existing native vegetation where possible, or design garden spaces that mimic natural ecosystems.
- Rewild where appropriate: native plants support pollinators and other animals that provide essential ecosystem services. Explore ReWild's resources available for the Perth metropolitan area.
- Install artificial habitats: Bird baths (cleaned regularly), nest boxes and insect hotels can help support local species.

The Shire of Mundaring's Seedling for Landcare Program supports eligible residents and ratepayers on rural-zoned properties larger than 4,000 m² to restore native vegetation. The Land for Wildlife (LFW) program empowers landholders to protect and restore natural areas and watercourses on their properties larger than 1 hectare (2.5 acres) with at least 10% native vegetation or a watercourse.

Food

Sustainable thinking when approaching food aims to reduce the environmental impacts of food choices while improving food security. One of the simplest actions you can take is to reduce food waste by valuing and using everything you buy or grow.

Buy food, not packaging

Humans have been producing, storing and trading food long before plastic packaging existed. Today, food packaging is one of the largest contributors to household waste, with soft plastics making up a significant proportion of general waste. There are several things you can do to reduce packaging consumption.

- Choosing unpackaged (“nude”) foods such as fresh fruit and vegetables. These are healthier for you and can be easily purchased, transported and stored without the need for plastic packaging.
- Bulk food shopping, which reduces packaging by shoppers brining their own reusable food storage (jars, bags, container) to fill. It also allows you to control the quantity you purchase, helping to cut both food and packaging waste.
- Growing food at home or in a community garden. Herbs are a great example, they are easy to grow and can significantly reduce plastic waste and food waste when they are freshly available, instead of buying herbs packaged in plastic each time they are needed for a recipe.

Buy local, eat seasonally

Buying local and eating seasonally delivers environmental, social and economic benefits.

- Reduced food miles: food miles refer to the distance food travels between production and consumption. Choosing local produce reduces reliance on road, sea and air freight, helping lower the carbon footprint associated with food transport.
- Greater freshness: locally produced food is often fresher, as some fruit and vegetables can otherwise be stored in cold storage for long periods before being sold.
- Seasonal variety: eating seasonally encourages appreciation of what is naturally available throughout the year and supports using seasonal cues when planning meals and recipes.
- Cost savings: produce that is in season is often more affordable due to higher availability and reduced storage and transport costs, helping to lower your grocery bills.

Eat more plant-based meals

Eating more plant-based meals is one of the easiest ways to live more sustainably. Plant-based diets help reduce carbon emissions, use fewer natural resources, and place less pressure on land and water systems.

Reducing Food Waste

Food waste refers to food intended for human consumption that is thrown away. Australian households discard around 2.5 million tonnes of food each year, which represents 30% of all food waste nationally.

By making simple changes, households can save up to $2,700 per year, reduce greenhouse gas emissions, and conserve valuable resources. The Great Unwaste, which is a nationwide behaviour change campaign have developed seven evidence-based behaviours to reduce food waste.

1. Pack it. Stack it. Chill it.	Proper storage and labelling of food makes sure food last long enough to reach your plate without any surprises or guessing.
2. Flexi meal plan	Meal planning, including factoring in leftovers or unexpected food outings before you write your shopping list is a solid way to cut down on your food waste.
3. Join the leftovers revolution	Embrace leftovers and turn last night's dinner into a next day lunch or dinner winner.
4. First in, first out	When figuring out what's for dinner, use the older stuff first, the ones most likely to go to waste. Rotating your groceries by packing new items away behind the older ones to keep everything fresh.
5. Stick to your list	Writing a list and sticking to it prevent overbuying and saves you money.
6. Cook just right	Check how many you are cooking for and how hungry they are, along with measuring ingredients and checking portions size on packets will help you to cooking the right amount.
7. Save room for seconds	Most plate waste ends up in the bin. Keeping your extra food in the pan or serving bowl means you can still grab more if you want, but you'll be more likely to pack away what's leftover for tomorrow's lunch.

For more information, including tips, tricks, resources and recipes visit The Great Unwaste.

Recipe inspiration

Getting recipe inspiration to use what you have at home (especially when using the first in, first out principal) helps avoid "popping to the shops" for single ingredients and reduces food waste. These nifty apps help you create a recipe customised to what you have available at home.

- Supercook – A free recipe search engine that generates meal ideas based on the ingredients you already have at home, helping prevent food from going to waste.
- Saveful – free app that helps you turn ingredients you have at home into tasty, money-saving meals the family will love.

Surplus food

There are several apps that can be used to connect people with surplus food when it is available. Alternatively, if you are a food business looking to reduce waste, these apps help you move surplus unsold food to members of the community interest in it.

- Too Good To Go – A mobile app that connects customers with restaurants, cafes and stores selling surplus unsold food at discounted prices.
- Foody Bag – An online platform that helps food retailers reduce waste and allows customers to purchase end-of-day surplus food at a reduced cost.
- Olio – A community-sharing app where people can give away, borrow or receive food and household items for free, reducing both food and household waste.

Understanding Food Labels

In addition to nutrition information, food labels can help you understand how food products were produced. Look out for the following logos on food labels when shopping.

Logo	Meaning
	Australian Made: supports Australian farmers, producers and supply chains.
	Fairtrade and social justice • Fairtrade International (Fairtrade Mark): ensures farmers receive a fair price and a premium for community projects.
	Company ethics and transparency • Certified B Corporation (B Corp): identifies businesses meeting high social and environmental standards.
	Vegan and plant-based • Certified Vegan (Vegan Action): confirms products contain no animal ingredients or by-products.
	Environmental and sustainable farming • Rainforest Alliance Certified (Green Frog): supports biodiversity conservation and sustainable livelihoods. • Marine Stewardship Council (MSC): indicates seafood sourced from assessed sustainable fisheries. • Aquaculture Stewardship Council (ASC): certifies responsibly farmed seafood. • Australian Organic Limited (AOL): certifies products grown using organic farming practices.

Waste

The Shire of Mundaring offers a range of waste services throughout the year to help residents manage their waste responsibly. As a community, we all share the responsibility to reduce the amount of waste we create so we can protect our environment and support a more sustainable future.

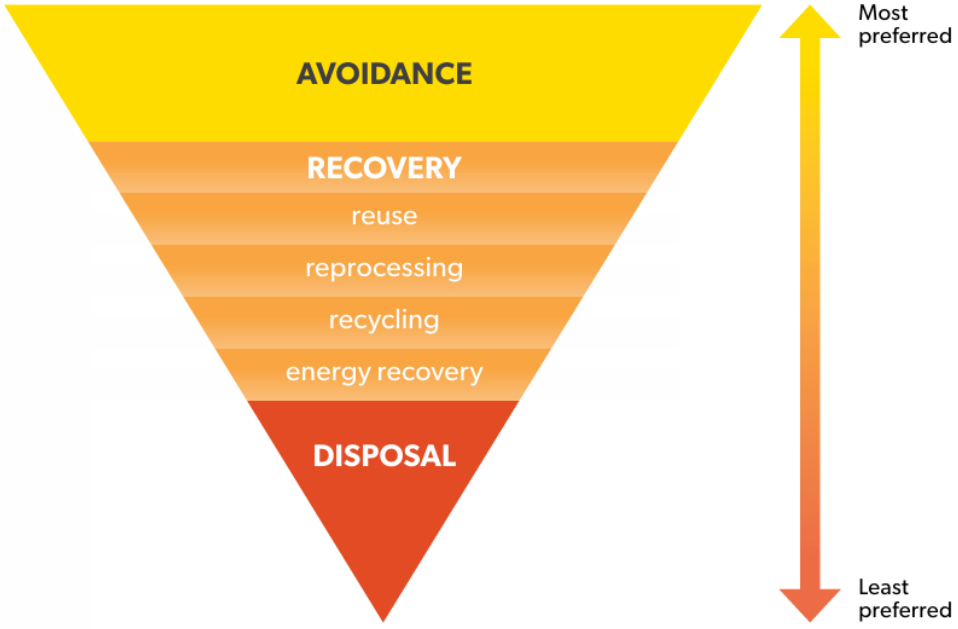
Shire of Mundaring standard residential rubbish service includes:

- 240 litre FOGO bin (light green lid) weekly service
- 240 litre recycling bin (yellow lid) fortnightly service
- 140 litre general waste bin (dark green or red lid) fortnightly service
- Community Recycling Centre entry passes
- Annual bulk verge collection.

Information about the how to your use bins, the Community Recycling Centre, annual bulk verge collection, disposal of household hazardous waste can be located and Shire's waste rebates are available on the Shire of Mundaring website.

For a searchable list of common household items and how to dispose of them correctly please visit recycleright Materials A-Z.

Waste hierarchy



Source: Waste Avoidance and Resource Recovery Strategy 2030

The waste hierarchy reminds us that the best option is to avoid creating waste in the first place. If waste can't be avoided, the next steps are to reuse, recycle, or recover materials and energy wherever possible. Anything left over should be disposed of responsibly. By following this approach, we help support a more circular and sustainable community.

Avoiding waste starts with small shifts in our everyday habits, from the way we shop to how we store and use consumer items. Focusing on plastic minimisation, choosing reusable options, and buying only what we need can make a big difference.

The Shire of Mundaring also supports residents to reduce waste with plastic-free hygiene alternatives by offering a cloth nappy and reusable hygiene product rebate.

One person's trash is another person's treasure!

Your yellow-top recycling bin isn't the only way to keep materials out of landfill. If you have items in good condition, there are many ways to pass them on instead of throwing them away.

Buy Nothing groups

Buy Nothing groups are hyper-local Facebook communities where neighbours give away items they no longer need, for free. It's a simple way to reduce waste, share resources, and connect with your local community. You can find your nearest group by searching Facebook or using the The Buy Nothing Project app.

Op shops

Op shops are another fantastic option for rehoming items or discovering second-hand treasures. Donating pre-loved goods helps reduce waste while supporting local charities.

Community Recycling Centre 'Grab n Go'

Both the Mundaring Community Recycling Centre and Chidlow Community Recycling Centre have a *Grab n Go* area where residents can give away good-quality items instead of binning them. Common donations include small furniture, pot plants, tools, bikes, and other household goods, helping these items find a second life in the community. For full details, visit the Shire's website.

Consumer habits

Shopping

Making more thoughtful purchasing decisions can reduce waste, save money, and lower your environmental impacts.

- Practise delayed gratification: before purchasing non-essential items, pause and ask yourself if you really need it. The ease of online shopping, constant sales and targeted advertising can make impulse buying tempting. Try waiting a week before buying, you may lose interest, find a better option, or decide you don't need it at all.
- Shop mindfully: choose to purchase products made from natural, durable and eco-friendly materials and support companies that promote sustainable practices.
- Choose natural fabrics: opt for natural fibres such as linen, cotton and wool instead of synthetic fabrics like polyester and nylon, which are plastic-based and shed microplastics.
- Reduce plastic where possible: shop with the intention of avoiding plastic. Choose products with minimal or no plastic packaging and consider whether items typically made from plastic are available made from alternative materials.
- Support the circular economy: shop for pre-loved items such as clothing from op shops, homewares and furniture from vintage, retro and antique stores.
- Look for businesses that offer take-back or product stewardship programs: this facilitates items to be repaired, reused or recycled at end of life.

Reduce, reuse, recycle

The three R's, reduce, reuse and recycle, remain some of the simplest and most effective ways to practise sustainable living.

- Buy less: before purchasing something new, pause and consider whether you really need it.
- Borrow: choose shared options such as Shire of Mundaring Libraries for books and media, tool libraries, toy libraries like the Mundaring Toy Library, or local car-share schemes instead of buying items you'll only use occasionally or for a short time.
- Hire: consider hiring event and party supplies, baby items, fashion and apparel, or tools and equipment, ideally for items you're likely to outgrow or only need for a one-off or limited period.
- Loan, swap and gift: consider sharing items, loaning seldom used items, or gifting unwanted items among friends and family.
- Repair before replacing: visit repair cafés or local repair services to extend the life of your household items.
- Refurbished or repaired items: opt for refurbished electronics or repaired goods rather than buying brand-new.

Try a "No Spend" or "Buy Nothing New" month

A No Spend month (also known as Buy Nothing New Month in October) is a personal challenge where you commit to buying only essentials, such as food, hygiene items and medicines for 30 days. This challenge acts as a financial and mental reset by:

- breaking impulse buying habits
- highlighting where money is mindlessly spent
- reducing waste
- accelerating savings goals.

Economic

Adopting sustainability habits often means reducing consumption and conserving resources, which can save you money and lower long-term running costs. You can also make financial decisions through a sustainability lens for better outcomes for yourself and your community.

Support your local economy

Supporting local businesses, markets, and producers helps them thrive and strengthens community resilience.

- Use the Shire of Mundaring Business Directory or Mundaring Chamber of Commerce Member Directory to find local businesses and service providers.
- Promote local businesses digitally and by word-of-mouth.
    - Leave positive reviews on social media and review sites to boost visibility.
    - Share and recommend your favourite local spots to friends, family, and your online network.

Financial choices

- Bank locally: choose local banks and credit unions that reinvest in the community through local loans.
- Invest locally: support projects and businesses that create local jobs and economic growth.

Why local matters

- Money stays local: a significant portion of money spent locally recirculates within the community, boosting prosperity.
- Job creation: local businesses hire local people and support other businesses, creating a virtuous cycle.
- Unique character: keeps towns vibrant, distinctive, and less dependent on outside corporations.

Responsible investment

Responsible investment, also known as sustainable or ethical investment, considers people, society, and the environment alongside financial performance.

Banks, superannuation funds, and governments invest your money, but not all investments are ethical. Responsible investment means choosing options that align with your values by supporting companies doing good (e.g., clean energy) and avoiding those causing harm (e.g., tobacco, weapons, fossil fuels). You can easily check what projects financial institutions support and switch to more ethical options that help drive change for a cleaner future.

Market Forces is one organisation that exposes institutions that are financing environmentally destructive projects so consumers can make informed choices and hold these institutions accountable. Their resources allow you to:

- compare banks and super funds based on their positions on fossil fuel financing,
- access advocacy tools to send messages to financial institutions and encourage better practices.

Being well-informed empowers you to make choices that reflect your values and invest in ways that are not only profitable but also responsible toward people and the planet, aiming for long-term positive impact alongside financial returns.

Social

A key aspect of living sustainably is building strong social connections for health and well-being. There are plenty of ways to get involved in your local community, from volunteering and joining local groups to participating in events and supporting local businesses. Every connection strengthens resilience and creates a more vibrant, supportive and sustainable communities in the foothills, hills and rural area.

Habits to support and build community:

- Support local businesses, shops, schools, and service providers.
- Make the most of local spaces such as parks, recreation centres, sports clubs, libraries, cafés, and community hubs.
- Get to know your neighbours and lend a hand when you can.
- Enrol your children in local day care and schools to strengthen community ties.
- Work with your neighbours and wider community to help develop local amenities, sports teams, arts activities, and other shared spaces that enrich community life.

There are many community groups you can get invoiced in, with plenty of opportunities to volunteer with nature, environment and animals, along with other areas such as arts, sports, leisure and special interests. These include:

- Community gardens
- Friends or Catchment Landcare Groups
- Resident and Ratepayer Associations

Shire of Mundaring Community Directory contains listing of not-for-profit organisation, club or group in the area, where you are bound to find something aligned to your interest.

Shire of Mundaring volunteering in the community page has information about volunteering and links to current volunteer opportunities.

Local volunteer bush fire brigades provide an invaluable opportunity to become involved in community, learn and support an important matter that impacts local community. The are a range of roles available, allowing everyone to get involved.

Community events

Experience Perth Hills compiles a list of things to do and events in the Peth Hills region.

Shire of Mundaring Events Calendar bring together listings of upcoming events. These include upcoming events held by the Shire such as environmental workshops, Summertime Cinema, libraries activities, and bushfire preparedness activities, as well as community groups events, community group workshops and community observances.

Resilient communities

Social advancement is a key pillar of sustainability. Resilient communities can adapt, withstand, and recover from shocks and stresses, such as natural disasters, economic pressures, or social disruptions while maintaining their core functions and well-being. By building strong social connections and being prepared, communities are better equipped to cope with challenges and emerge stronger and more connected.

In the Shire of Mundaring, two major risks are bushfires and severe storms. Being aware and prepared for these hazards is essential for community resilience and safety. The Emergency WA app shows all information and updates relating to warning and incident in WA.

Bushfire	Storm
	
Perth's bushfire season is from November to April with peak time between December and March. In the Shire of Mundaring properties should be mindful all year, and properties require maintenance year-round to mitigate risk. You can subscribe to the Shire of Mundaring's free Fire Ban SMS notifications system for local bushfire information.	May to October each year, severe storms and heavy rain can cause major destruction to the southern half of Western Australia. However, we are increasingly seeing storm events year round that cause significant environmental and economic damage. People are encouraged to keep storm ready year-round.

Preparing for a bushfire
• Have an emergency plan
• Know your Fire Danger Rating
• Know the alerts and warnings
• Prepare your emergency kit for emergency evacuation and staying in place
• Prepare your home and property
• Manage vegetation around buildings
• Create and maintain Asset Protection Zones
• Prepare your pets and livestock. Information for:
  ○ Animal welfare
  ○ Companion animals
  ○ Livestock
  ○ Horses
	Preparing for a storm
	• Trim trees and shrubs
	• Clear your gutters, down pipes and drains
	• Check your roof for signs of damage
	• Check your fences
	• Secure loose objects outdoors
	• Create an emergency kit
	• Review your home and contents insurance policy
	• Keep your pets safe (make sure animals and livestock have safe and secure areas and/or shelter). Information for:
	  ○ Animal welfare
	  ○ Companion animals
	  ○ Livestock
	  ○ Horses
	• If possible, move your car under shelter
	• Check doors and windows
	• Stay indoors when a storm hits

For more information visit: • Department of Fire and Emergency Services Prepare for a bushfire • Shire of Mundaring Bush Fire and Fire Management information	For full guides and relevant information visit: • Department of Fire and Emergency Services Prepare for a storm • Western Power's Outages Map • RAC WA Tips for driving in stormy weather

Building and renovating

Building a house is a unique opportunity to create a comfortable space that you will call home. Incorporating as many environmentally friendly development design elements as possible will add to comfort and likely reduce home running costs in the future. The best time to incorporate or install many features such as passive solar design, rainwater tanks and greywater recycling systems is when you're building your house.

Key considerations when building

	Key considerations
Design	• The design phase is the best time to incorporate passive solar building design to maximise comfort, liveability, and energy efficiency, thereby reducing the ongoing operational costs of your home. • For full information see the passive solar building design information localised to the Shire which addresses key elements of orientation, seasonal sun angles, building shape and locations, insulation, thermal mass and ventilation to keep your home naturally warm in winter and cool in summer. • Light external colours are encouraged as they tend to reflect the sun's heat, which is more beneficial for Perth's climate.
Materials	• Consider using building materials with low embodied energy, which means they do not require a lot of energy to manufacture, transport or install. • Choose building materials that are locally sourced, natural and or renewable. • Explore ways to use recycled materials when possible.
Energy	• Ensure that your building have appropriate insulating materials for improved thermal performance. • Carefully consider the location and selection of windows, eaves and louvers which will impact energy consumption and costs for lighting, heating and cooling. • Install renewable energy systems, such as solar water heaters, electric heat pump, solar panels and battery. • Install in-home energy saving devices, such as smart metering and automated timers to minimise energy use during hours of peak demand. • Install energy efficient lighting, including LED or Compact Fluorescent Lights (CFLs). • Invest in energy efficient appliances including washing machines, dishwashers and ovens.

	Key considerations
Transport	• When purchasing land consider the nearby public transport links such as transport hubs, bus stops & train stations. • Include easy-to-access bicycle storage in your home design to support using active transport. • Garages of the future including planning to accommodate space and electrical provisions for potential battery and installing EV chargers.
Water	• Design and install guttering features and rainwater tanks to maximise rainwater harvesting. • Install the highest WELS efficient fixtures possible. • Plant water-wise gardens with native or low water demand plants which require no or very little irrigation. • Install water-wise irrigation, such as 'micro-drip' watering rates. • Include rain gardens and permeable paving in landscaping for water management. • Consider appropriate effluent disposal systems relevant to the property. • Design and install system to reuse greywater for irrigating lawns, ornamental trees, shrubs, and fruit trees in the garden. • Consider additional development you are likely to undertake in the future such as pools, patios, sheds, rainwater tanks and driveways when select water and effluent disposal system and locations.
Waste	• Ask your builder to engage a waste management contractor to minimise construction waste and maximise recycling opportunities. • Plan a space for storage of three wheelies bins in a practical and aesthetically pleasing location. Is should be easily accessible from home (kitchen) and situation on/close to paths for moving bins. To reduce smell and risk of bin being blown over ideally select shaded and sheltered location.
Nature	• Plant local native species on your property as they require less water and attract fauna & encourage biodiversity. • Engage with the Shire of Mundaring Environmental Asset Inspection service, for a Shire Environmental Officer to provide site-specific advice regarding environmental assets and issues.

	Key considerations

Liveability	• Think beyond your immediate personal needs when designing your home. A home that can accommodate the needs of a broad range of household types will have a longer lifespan and remain attractive to future buyers in the long-term.
	• Design and fit-out your home according to Universal 'Safe and Accessible' Design principles, which accommodates the needs of people of all ages and mobility levels. Consider creating space with:
	  ○ Level pathway and level door-way threshold to the front, or at least via the garage/ carport.
	  ○ Accessible, well illuminated car park and pathway.
	  ○ Wide doorways (minimum opening of 850mm) and passages (minimum width of 1 metre) throughout the home, including to the bathroom and toilet.
	  ○ Bathroom with semi-recessed hand basin and hobless-step-free-showers, and with hand-rails included.
	  ○ Toilet on the ground level, and have large enough internal dimensions for a wheelchair (2m x 1.6m), and fitted with a hand rail.
	• Choose materials with low volatile organic compound (VOC) emissions and low formaldehyde for floor coverings, furniture components, blinds, paints, adhesives, sealants,
	• Give preference for natural fabrics with high flame resistance and low toxicity qualities for internal finishing like blinds, carpets and furniture.

Sustainable building performance can be recognised through the following accreditation and rating schemes.

- The Nationwide House Energy Rating Scheme (NatHERS) provides energy ratings for new homes and is being expanded to include energy ratings for existing homes.
- NABERS (National Australian Built Environment Rating System) is a national rating system that measures the environmental performance of Australian buildings and tenancies.
- Green Star certification, which recognises best-practice sustainable design, construction and operation of buildings.

Guides

For further information about building explore:

- Switch Your Thinking guide to Building an Energy Efficient Home
- Switch Your Thinking Energy Efficient Home Building - Checklist
- Comprehensive resource available from the Australian Government's YourHome

References

- ALG 2024, *Making the switch from gas to induction*, AGL, accessed 16 February 2026, <https://www.agl.com.au/discover/home/making-the-switch-from-gas-to-induction>.
- AGL 2025, *Energy efficient ways to cook*, AGL, accessed 3 February 2026, <https://www.agl.com.au/discover/saving-energy/energy-efficient-ways-to-cook>.
- Australian Renewable Energy Agency 2026, *ARENA website*, Australian Government, accessed 3 February 2026, <https://arena.gov.au/>.
- Cedar Woods n.d, *Sustainable Living Guide*, Cedar Woods and Living Key, accessed 26 February 2026, <https://www.cedarwoods.com.au/millars-landing/mvc/config/getattachment/f513c887-b6ba-4fd8-bc08-dec1553884ef/220324-WA-Sustainable-Living-Guide.pdf>.
- Climate Council 2026, *Climate Council website*, accessed 3 February 2026, <https://www.climatecouncil.org.au/>.
- Cumming, A 2018, *Not just window dressing: High-performance curtains and blinds*, Renew, accessed 16 February 2026, <https://renew.org.au/renew-magazine/buyers-guides/high-performance-curtains/>.
- Department of Climate Change, Energy, the Environment and Water 2025, *energy.gv.au website*, Australian Government, accessed 3 February 2026, <https://www.energy.gov.au/>.
- Department of Climate Change, Energy, the Environment and Water 2025, *Reducing Australia's food waste*, Australian Government, accessed 17 February 2026, <https://www.dcceew.gov.au/environment/protection/waste/food-waste>.
- Department of Climate Change, Energy, the Environment and Water 2026, *WELS Scheme*, Australian Government, accessed 16 February 2026, <https://www.waterrating.gov.au/>.
- Department of Industry, Science, Energy and Resources 2021, *Your Home*, Australian Government, accessed 16 February 2026, <https://www.yourhome.gov.au/>.
- Electrify Everything 2026, *Electrify Everything website*, accessed 16 February 2026, <https://www.electrifyeverything.org.au/>.
- EN Plus Tech 2024, *Types of Electric Vehicles: BEVs, FCEVs, HEVs and PHEVs*, EN Plus Tech, accessed 3 February 2026, <https://www.en-plustech.com/blog/4-types-of-electric-vehicles/>.
- End Food Waste Australia 2026, *The Great Unwaste*, Australian Government, accessed 17 February 2026, <https://thegreatunwaste.com.au/>.
- Energy Rating 2026, *Energy Rating website*, *website*, Australian Government, accessed 3 February 2026, <https://www.energyrating.gov.au/>.
- Energy Saving Trust 2025, *How eating less meat can reduce our carbon emissions*, Energy Saving Trust, accessed 13 May 2026, <https://energysavingtrust.org.uk/how-eating-less-meat-can-reduce-our-carbon-emissions/>.
- Energy Saving Trust 2026, *4. Sustainable transport hierarchy*, Energy Saving Trust, accessed 3 February 2026, <https://fleetdecarbonisationtoolkit.energysavingtrust.org.uk/t/decarbonisation-strategy/sustainable-transport-hierarchy/>.
- Future 2025, *How to Make Your Commute More Sustainable*, Future, accesses 3 February 2026, <https://www.futurecard.co/futureblog/make-your-commute-more-sustainable>.
- Green Vehicle Guide 2026, *Green Vehicle Guide website*, Australian Government, accessed 3 February 2026, <https://www.greenvehicleguide.gov.au/>.

- Institute for Sensible Transport n.d., *Electric Vehicle Charging Implementation Plan*, Institute for Sensible Transport, accessed 3 February 2026, <https://sensibletransport.org.au/project/electric-vehicle-charging-implementation-plan/>.
- NHS England 2023, *Net Zero travel and transport strategy*, NHS UK, accessed 3 February 2026, <https://www.england.nhs.uk/long-read/net-zero-travel-and-transport-strategy/>.
- Picone, L 2025, *Switching from gas to induction: What you need to know*, CHOICE, accessed 16 February 2026, <https://www.choice.com.au/home-and-living/kitchen/cooktops/articles/switching-from-gas-to-induction>.
- Renew n.d., *Renew's Getting Off Gas Toolkit,* Renew, accessed 16 February 2026, <https://gettingoffgastoolkit.com/>.
- Rewiring Australia 2026, *Rewiring Australia website*, accessed 3 February 2026, <https://rewiringaustralia.org/>.
- RIAA n.d, *Responsible investment explained,* Responsible Investment Association Australasia Ltd, accessed 3 February 2026, <https://www.responsibleinvestment.org/learn/what-is-ri>.
- Ritchie, H 2024, *What share of global CO_2 emissions come from aviation?*, Our World in Data, accessed 26 February 2026, <https://ourworldindata.org/global-aviation-emissions>.
- Shire of Kalamunda 2013, *Sustainable Living Guide*, Shire of Kalamunda, accessed 16 February 2026, <https://www.mundaring.wa.gov.au/documents/200/sustainable-living-guide>.
- Switch Your Thinking 2016, *Switch Your Thinking website*, South East Regional Energy Group, accessed 3 February 2026, <https://switchyourthinking.com/>.
- Synergy 2026, *Synergy website*, accessed 3 February 2026, <https://www.synergy.net.au/>.
- Timperley, J 2020, *Should we give up flying for the sake of the climate?*, BBC, accessed 26 February 2026, <https://www.bbc.com/future/article/20200218-climate-change-how-to-cut-your-carbon-emissions-when-flying>.
- Turner, L 2019, *A draught sealing buyers guide*, Renew, accessed 16 February 2026, <https://renew.org.au/renew-magazine/buyers-guides/draught-sealing-guide/>.
- Waste Authority 2019, *Waste Avoidance and Resource Recovery Strategy 2030*, Department of Water and Environmental Regulation, accessed 3 February 2026, <https://www.wasteauthority.wa.gov.au/publications/view/strategy/waste-avoidance-and-resource-recovery-strategy-2030>.
- Water Corporation 2026, *Water Corporation website*, accessed 16 February 2026, < https://www.watercorporation.com.au/>.
- WWF Australia 2018, *Reduce your food footprint*, World Wildlife Fund Australia, accessed 3 February 2026, <https://wwf.org.au/get-involved/change-the-way-you-live/reduce-your-food-footprint/>.
- YourHome 2021, *Australia's Guide to environmentally sustainable homes*, Australian Government, accessed 3 February 2026, <https://www.yourhome.gov.au/>.