



Participate in environmentally sustainable work practices

AHCWRK209

By the end of this topic, you should be able to:

- Identify current resource use
- Comply with environmental regulations
- Seek opportunities to improve resource efficiency

- Many organisations are now focussed on implementing environmentally friendly and sustainable practices.
 - These practices are focussed on improved efficiency – reducing the use of resources and impact on the environment.
- Such practices assist in complying with environmental laws such as:
 - *Environmental Protection Act 1994* (Qld)
 - *Environmental Protection Regulation 2019* (Qld)

Under the law, all workplaces are required to protect the environment in a way that maintains the ecological processes on which life depends.

- Consider the resources that are used within your organisation. These may include:
 - Plant and machinery
 - Lights
 - Raw materials
 - Chemicals
- Sustainable practices include conservation, reuse or modification of:
 - Energy
 - Water
 - Waste

- With increasing energy prices, many companies are seeking alternative energy sources, or to reduce their energy usage.
 - Sustainable energy practices reduce energy consumption, save money and reduce greenhouse gases caused by burning fossil fuels.
- Your workplace can conserve energy usage by:
 - Turning off lights and equipment when not in use
 - Using power saving functions on equipment
 - Using efficient motors and lights
 - Using alternative sources of energy



- Growing pressure on water resources has resulted in companies conserving water usage, either by using less water or reusing water when possible.
 - Recycling water provides additional nutrients and benefits the environment, such as reducing the contaminants that enter the waterway.
- Your workplace can save water by:
 - Comparing water usage to other workplaces and making adjustments
 - Fixing dripping taps and leaking pipes
 - Avoiding using water when other approaches are possible
 - Investigating ways to use or treat wastewater



- With rising landfill disposal costs, the ability to reduce waste has become increasingly important for companies.
 - Reuse of organic waste reduces cost of disposal whilst improving the soil through compost and mulch.
- Strategies your workplace can use to reuse and preserve natural resources include:
 - Composting all organic matter
 - Reusing or recycling natural materials, such as timber
 - Using barricades or sand bags to minimise contamination of soil from chemicals



- Since the 1990s companies have been increasingly taking action to minimise their contribution to carbon dioxide emissions into the atmosphere.
 - Practices that reduce air pollution, such as removing toxic chemicals in fertilisers help create healthier plants and animals.
- To minimise air pollution and improve air quality your workplace can:
 - Adopting cleaner technologies, such as using environmentally friendly technologies
 - Removing pollutants from gases and chemicals
 - Burning less polluting fuels
 - Wetting down dust causing particles

- Organisations should document and measure current usage of resources to identify areas for improvement.
 - These observations can be made using a checklist or by compiling a more detailed report
- It is important that such documentation is recorded and filed (e.g. using software) so that trends/improvements can be observed over time.

- A usage rate tells you the number of times or the amount of product that you use on a daily/weekly/monthly basis.
- Usage rates can be determined by:
 - Reviewing supplier invoices/receipts
 - Reviewing water and electricity bills
 - Physically counting items
 - Reviewing log books

- As part of observing resource usage, it is important to identify and report workplace environmental hazards.
 - These hazards may be affecting efficiency.
- A hazard is a situation/activity/substance that has the potential to cause harm, injury or illness to a person or the environment.
 - Under the law a person can be found guilty of an environmental offence before any harm has been caused.
 - As such, you should report any breaches or potential breaches to appropriate personnel, such as your supervisor.

- Water quality sustains ecological processes that support vegetation, wetlands and birdlife.
 - Water quality is also essential for healthy irrigation, stock watering, drinking, fishing and recreation.
- Water quality can be affected by:
 - Disturbed vegetation
 - Exposed soil
 - Transportation of soil
 - Rainfall and poor sediment control
 - Spills of hazardous chemicals and materials
 - Acid Sulphate Soils (ASS)

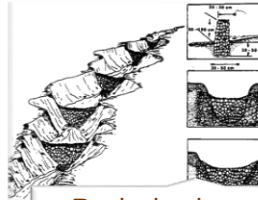


Hazards: Water

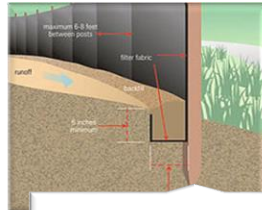
- The following controls may assist with reducing water pollution:



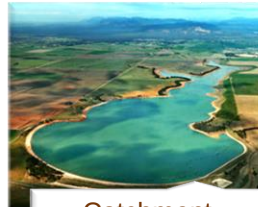
Diversion drains



Rock checks
dams



Silt fencing



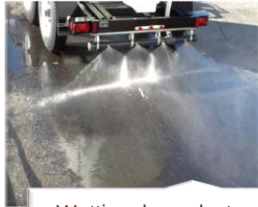
Catchment
management

- Good air quality is critical for supporting the amenity of the places we live in, our environment, and maintaining our ecosystem.
 - Air pollution can cause soiling and corrosion.
 - Technologies, such as soil detection equipment, can measure air pollution by testing the level of contaminants in soil.
- Air quality can be affected by:
 - Trucks and other vehicles
 - Plant and other equipment (used in loading/hauling materials)
 - Exhaust emissions



Hazards: Air

- The following controls may assist with minimising air pollution:



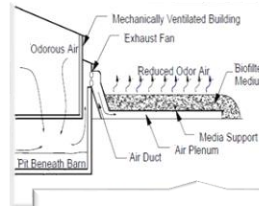
Wetting down dust particles



Maintaining exhaust systems on machines



Stockpile coverage



Enclosed storage

- Healthy soil is crucial for plant and animal wellbeing.
 - Soil contamination occurs as a result of human waste, such as waste products that are full of chemicals and are not naturally found in nature.
 - Technologies, such as soil detection equipment, can test the level of contaminants in soil.
- Soil contamination can be affected by:
 - Pollutants (e.g. waste disposal, spills, gases, emulsions, run off)
 - Chemicals (e.g. fuel, oil, cleaning products, pesticides, herbicides)
 - Treatments (e.g. manure, flocculent)



Hazards: Waste

- The following controls may assist with minimising soil contamination:



Use organic pesticides



Recycle waste



Plant trees



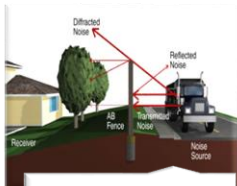
Dispose of chemicals safely

- Noise pollution takes place where there is either an excessive amount of noise or an unpleasant sound that causes temporary disruption to the natural balance.
 - One effect of noise can be a loss of hearing for workers or others nearby
 - Technology, such as sound level meters, can be used to measure the decibel level
- Noise pollution can be caused by:
 - Vehicles
 - Machinery
 - Busy work areas



Hazards: Noise

- The following controls may assist with limiting noise pollution:



Noise barrier or fence



Sound enclosures on noisy equipment



Improved exhaust muffler system



Low frequency reversing beepers



Limit shouting and loud talking



Change location or time of work

Workplace environmental hazards

- To identify environmental hazards, you can:



Inspect your workplace



Talk to your employees

A Safety Data Sheet (SDS) should always be checked before storing two or more potentially dangerous substances together.



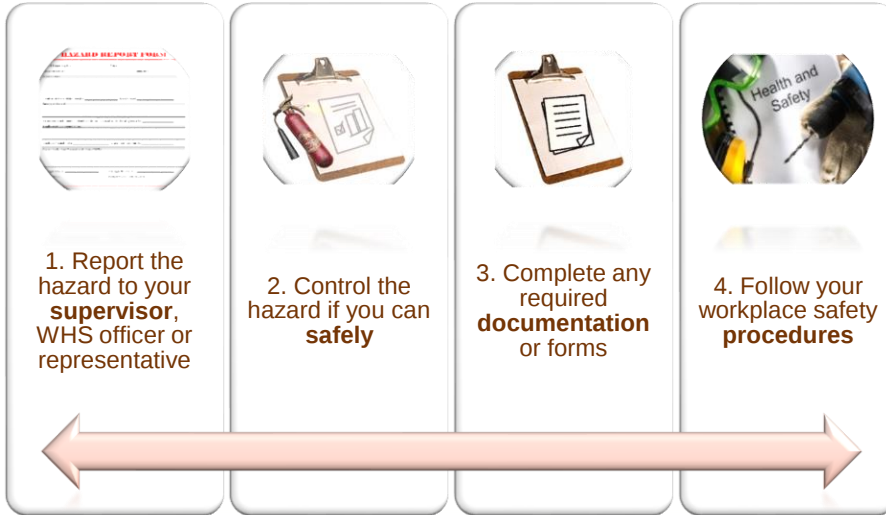
Look at Safety Data Sheets (SDS)



Examine incident records

Workplace environmental hazards

- To report a hazard, you should:

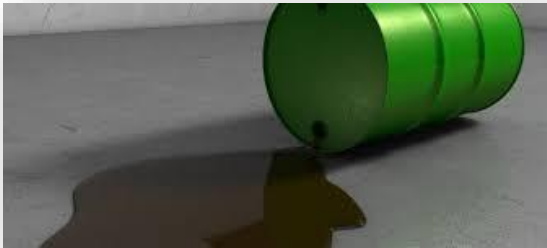




Case Study:

A large drum of oil has spilt 20L+ of oil all over the workplace driveway.

The driveway leads to park gardens and other local horticultural areas.



What should you do?

- **Immediately report** the oil spill to your **supervisor**
- Follow your workplace **safety procedures** for oil spills
- Place sand bags or other barriers to prevent further spreading
- **Access a spill kit** to clean the spill but only if safe



Aboriginal or historical implements

- You must also be mindful of encountering Aboriginal or historical implements when undertaking work.
 - If you encounter such items, you should stop work and notify your supervisor.
- Legislation mandates that any Aboriginal artefact or old implement is to be handed to the appropriate authorities.
 - They are not to be kept as souvenirs.

- Your workplace may have a plan for improving its environmental practices and resource efficiency.
 - You should review its documented operating procedures, policies and processes.
- By reviewing your workplace's plan for improvement, you can identify:
 - Actions planned
 - Who is responsible for each action
 - Timeframes for implementation

- Working as part of a team, you can contribute to identifying possible areas for improvement to work practices and make suggestions for improvement.
- This may be through:
 - Making recommendations based on government sustainability initiatives, standards, codes of practice, and other guidelines.
 - Influencing suppliers to take up environmentally sustainable approaches.
 - Researching and participating in programs, such as supply chain programs to purchase sustainable products.

- When providing suggestions, be sure to support your arguments.
- Identify:
 - How your idea will improve resource efficiency
 - How you can measure the improvement
 - An estimate on what the improvement will be

For example:

“I think that we can save on the use of resources by reducing the amount of delivery trips we make during the day. Currently, we make up to eight delivery trips per day because there are different delivery times.

To save on the use of fuel and employee time spent delivering resources, which would lead to greater productivity, we could inform customers that resources can be only delivered in the morning, or alternatively at allocated times in the morning and afternoon.

In this example, the employee has provided a couple of options for the company whilst also pointing out the benefits to the company's productivity and to the environment.