



Australian Government
Attorney-General's Department

Dingo Creek II – the Recovery
Teaching Manual



Intended to be used in the following
Year levels: 4-6 Middle Years

Introduction

Welcome to the second *Dingo Creek* learning object developed by the Attorney General's Department, which provides national leadership in the development of emergency management measures to reduce the risk to communities and manage the consequences of disasters.

About the project

Dingo Creek II – the Recovery aims to engage Years 4-6 students in the process of:

- Identifying and understanding risks from, and impact of, disasters to their immediate community; and
- Emergency management and disaster recovery in the Australian environment.

Dingo Creek II – the Recovery, focuses on personal and community resilience to the effects of disaster and will raise awareness of local risks and impacts of disasters and introduce the recovery process.

Australian teachers and students have been involved in the design of the cross-curricula, cross year level resources we now share with you.

Dingo Creek II – the Recovery, builds on *Dingo Creek I* which helps to equip your students with the knowledge and skills that will allow them to make informed decisions to minimise the risks to their communities and to develop further understanding of how the emergency management agencies across Australia work to protect communities and minimise risk.

Like its predecessor, *Dingo Creek II* is an engaging, easy-to-use multimedia resource, with associated downloadable classroom activities.

These resources have been designed to be used flexibly so that they can be applied across your school's curriculum from Years 4-6. We encourage you to use and adapt these resources to meet the particular needs of your student population and enjoy the tangible benefits in the further development of their digital literacy: making your students more empowered and discriminating users of technology.

What you will find

1. Teacher Manual
Information, curriculum links and ideas about using this resource with your students.
2. Teaching and learning activities
This section includes 6 downloadable student activities of varying complexity and duration that you can adapt to your own classroom context.
3. *Dingo Creek II – the Recovery*
This interactive multimedia resource enables your students to become immersed in the community's recovery process and report to a community meeting on the strategies being used.

How this works with Dingo Creek I

It is not necessary to have completed *Dingo Creek I* before you explore *Dingo Creek II – the Recovery*. However, *Dingo Creek I* is effective in giving both you and your students a background and context for what has happened in the community, the characters and the impact of the disaster. It is also beneficial in highlighting the Emergency Risk Management (ERM) process. You might also find that some of the 8 downloadable activities developed for *Dingo Creek I* might also be able to be adapted and customised for your students once they have explored *Dingo Creek II*.

How past experience impacts on learning about disasters

It's a good idea to think about your student population before you undertake any of the activities in this resource. Your students' experiences will impact on their reactions and comfort levels with the work you

are doing. Be sensitive to their concerns or fears...and be aware that silence doesn't always equate with agreement.

Some young people, including those who have come to Australia as refugees from war-torn countries, may have had negative experiences of a disaster that has happened to them or to a relative. Due to these experiences, they may find any discussions of disaster scenarios distressing or they may find it difficult to re-establish trust. Where there has been past negative experience of emergency service personnel or police, these young people, their families and communities may mistrust personnel in uniform. This can be manifested in various ways, including avoiding contact with people performing these roles.

Trust can be encouraged by emphasising that many emergency services officers, especially the State Emergency Service officers and bushfire fighters, are friendly volunteers who are only intent on helping residents in times of emergency and crisis.

If you know that a child in your class has been touched by disaster, you might choose to give them the option to 'opt out' of the activity or work with them to ensure they are comfortable with the content and subject matter.

Every individual will respond differently to life experiences.

Some young people will be amazingly resilient and you will use your professional judgement of what is most appropriate within your classroom context.

Schools are vital links in providing an opportunity to learn about emergency management and disaster recovery in a safe environment.

Background – Teacher Notes about the Disaster Recovery Process

This interactive resource will develop your students' understanding of the key concepts that apply to the Disaster Recovery Process. The Recovery Process needs to be viewed in the context of the Comprehensive Approach, one of the fundamental concepts of emergency management promoted in Australia. This approach encompasses: Emergency Prevention; Preparedness; Response and Recovery (PPRR).

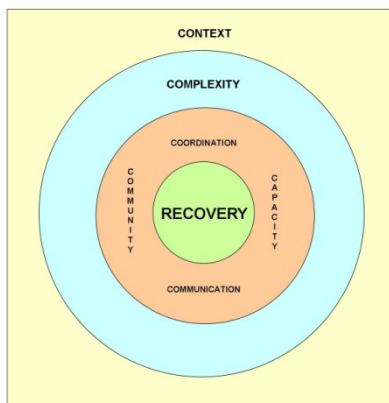
What is recovery?

In the Australian Emergency Manual, Disaster Recovery (Attorney General's Department, 2004), disaster recovery is defined as "The coordinated process of supporting disaster affected communities in the reconstruction of the physical infrastructure and the restoration of emotional, social, economic and physical wellbeing".

Recovery is more than simply the replacement of what has been destroyed and the rehabilitation of those affected. It is a complex social and developmental process. The manner in which recovery processes are undertaken is critical to their success.

Recovery is best achieved when the affected community is able to exercise a high degree of self-determination.

Recovery management is based very much on a community perspective. The most effective recovery occurs where the affected community manages its own affairs after a disaster and provides the core of all the work that's undertaken with the wide range of agencies providing support to them.



According to the National Principles for Disaster Recovery (Attorney General's Department, 2008) successful recovery relies on the following:

- understanding the **context**;
- recognising **complexity**;
- using **community**-led approaches;
- ensuring **coordination** of all activities;
- employing effective **communication**; and
- acknowledging and building **capacity**.

A comprehensive recovery process addresses the following elements of a disaster:

1. physical infrastructure or built environment;
2. social or psycho-social impact;
3. economic impact; and
4. natural environment.

The four elements of the comprehensive approach identified above are fundamental to *Dingo Creek II – the Recovery*. The interactive resource contains many different strategies to address the impact of disaster on these elements that can also be categorised as immediate, medium term, long term and, in some cases, as ongoing.



What is economic recovery?

The economic effects of disasters are mostly seen as physical damage to infrastructure and stock. Other impacts can be less obvious.

There can be direct and indirect impacts on the economy.

Direct impacts result from the physical destruction or damage to businesses, residences and public infrastructure and community facilities including:

- Structural damage to buildings and infrastructure - foundations, walls, floors, roofs, doors, in-built furniture, windows, bridges, roads, lifelines (like water, sanitation, electricity, gas, telecommunications and transport);
- Damage to contents - fixtures and fittings (e.g. carpets), furniture, office equipment, farm equipment, records, product stock (finished manufactured products, works in progress and input materials), crops, pastures, livestock etc;
- External damage - motor vehicles and fences.

Indirect impacts are due to the consequences of the damage or destruction, such as:

- For Businesses - experiencing loss of productivity or income, like shops or tourism operators;
- For people in the community - loss of workplace or schools, and services like banking or supermarkets.
- For people in houses - having to find alternative accommodation, cleaning up mud and debris, removing ruined furniture and equipment, drying out house contents, medical costs from injuries;
- For emergency services – rescuing and evacuating people from the disaster area.

Some businesses lose confidence, lose staff and end up closing down. Sometimes buildings or structures that have a special historical significance in the town, like the Memorial on the Dingo Creek Foreshore, are lost. With schools closed immediately after a disaster, children miss out on some education. People lose personal mementos or pets and can feel stressed, unwell, dislocated, unsafe and sad.

In *Dingo Creek II – the Recovery*, economic recovery is called *Getting back on our feet*.

What is physical or infrastructure impacts and how to achieve recovery?

Physical infrastructure elements are often referred to as the physical lifelines of the community. They include:

- power supply and distribution systems;
- communications networks;
- water, sewerage and drainage systems; and
- transportation networks.

Support Infrastructure includes a number of service and support networks and include:

- food and merchandise distribution systems, which include markets, wholesalers and retailers;
- the building sector, which includes insurers, builders, sub-contractors and suppliers;
- the health-care sector, which includes health insurance, medical practitioners, pharmacists, pharmaceutical suppliers and hospitals;
- education and training functions; and
- housing, accommodation and catering systems.

What happens when the infrastructure is damaged and how to achieve recovery?

Loss of service Supply – power and gas and water

- food spoils in fridges and freezers;
- water supplies may fail as pumps stop;
- sewerage systems may back-up as sewer pumps fail;
- computers won't work;

- communication systems won't reach people who can't view television or listen to radio unless they have batteries;
- commercial sales may be impossible without working scanners and merchandise databases;
- fuel cannot be pumped in service stations;
- loss of heating or cooling in homes and no hot water for washing and cleaning;
- drinking water may have to be imported;
- loss of water for washing may contribute to sanitation problems;
- toilets won't flush.

Loss of Transport Networks

- difficult to get essential supplies in or evacuate people out;
- load limits on damaged roads can hamper the delivery.

Health Services

- risk of epidemics and disease;
- hospital under stress due to number of injured.

Shops, commerce, sanitation can all be affected. People can be rendered homeless.

In *Dingo Creek II – the Recovery*, physical or infrastructure recovery is called *Rebuilding*.

What is meant by psychological impact and how might we achieve recovery?

Common experiences and feelings

People can feel shock, fear, anger, sadness, guilt, shame and helplessness after an emergency or disaster. Things can seem unreal, like a dream or people can feel panicked or scared of being hurt again. Some people get angry, wondering "who caused this?" and feeling outraged at the destruction that has happened. Others might feel powerless, or overwhelmingly sad about what they, and their community, have lost. Sometimes people who have survived, or whose homes are still standing, while their friends have lost everything, feel guilty and ashamed.

Effects on behaviour

These feelings can make people behave in different ways. They can feel tense, and easily startled or nervous about things. They might not be able to sleep because they keep reliving what has happened to them, or they could be having frightening nightmares. Flashbacks and memories of the disaster can interfere with concentration and people can become irritable, with their moods changing all the time. Some people get depressed or withdraw from others, and need to be alone. Feeling tired, finding it hard to breathe, getting headaches....these can all stem from these feelings.

How to help people

Communication is vital. Talking, listening, providing opportunities to share information and using different ways of communicating (on the radio, via a website or blog, at a community meeting or through flyers) helps to involve people in the community in the recovery process and keeps rumours or dissatisfaction in check.

The Positive Side

After a disaster people can become wiser and stronger. Community bonds can be strengthened by sharing an intense experience together and can help people in coping with the everyday stresses of life. It can also be a turning point where people re-evaluate the value of life and appreciate the little things often overlooked.

In *Dingo Creek II – the Recovery*, psychological recovery is called *Feeling better*.

What is impact on the natural environment?

Disasters can have serious effects on the environment. Animals and plants can be destroyed, injured or displaced. The landscape can be changed and erosion can occur. This can cause hardship for the community. Affected parts of the environment include:

- *Water quality*
This can be affected by mud, sediment, rotting organisms, disease or pollutants. Where the water is used for drinking, the degradation directly impacts the community. In other cases, changes in the water quality may affect dissolved oxygen levels and lead to changes to the biota in the water. This may lead to fish kills, development of algal blooms, weed kills or the choking of waterways with weed or algae.
- *Soil contamination and erosion*
The inundation of water, destruction of trees and grasses that stabilise the soil, can cause significant erosion.
- *General amenity (pleasantness) and aesthetics of an environment*
The local natural landscape can be less attractive after a disaster.

Tourism activities that rely on the environment may also be affected.

In *Dingo Creek II – the Recovery*, this section is called *Environmental recovery*.

(This content is included in Fact Sheets in each key element of the *Dingo Creek II* interactive resource.)

About the Resources

This is a summary overview of the 6 teaching and learning activities for the Dingo Creek II (DC II) resource. The complexity and duration of each activity varies.

These activities have been designed so that their application is cross-curricula and can be used across the middle years and are applicable to students from Years 4-6.

1. *Being a Dingo Creek character*
Years 4-6
Duration: Up to 5 periods
Students take on the persona of one of the Dingo Creek II characters and develop personal artefacts from the point of view of the character as they experience the recovery process in Dingo Creek.
2. *Mapping a recovery plan*
Years 5-6
Duration: Up to 3 periods
Students explore in detail the key recovery elements addressed in DC II. Using a graphic organiser such as a Mind Map or Flow Chart (or their own mind mapping/concept mapping software) the students record the key stages and steps in community recovery.
3. *Undertake an investigation*
Years 4-6
Duration: Up to 5 periods
Working in pairs or small groups, the students investigate how a real life community in Australia is recovering following a recent disaster such as the Victorian bushfires or the Queensland floods.
4. *Plan an event*
Years 4-6
Duration: Up to 10 periods
Working in groups of 4-6, students plan an event to help a community recover and undertake all the steps, produce peripheral materials for the event.
5. *Being a newshound*
Years 5-6
Duration: Up to 5 periods
Students pretend they are a reporter documenting what has happened in Dingo Creek 6 months after the flood and storm. How will things have changed? What issues are emerging? Who is leading the way? What are the community saying?
6. *Personal response*
Years 4-6
Duration: 1 – 2 periods
Students can select from 5 images available on the Attorney General's Department website. In the time given, they are to respond to the image in any form they choose: a poem, song, narrative, opinionative essay, painting, sculpture etc.

Curriculum Mapping

The following state & territory curriculum outcomes could be applied to the *Dingo Creek II – the Recovery* multimedia resource and teaching and learning activities.

Australian Capital Territory

Essential Learning Achievements: The ACT curriculum framework identifies the learning that is essential for students as they progress from preschool to year 10 through 25 Essential Learning Achievements. Essential Learning Achievements are statements of what is essential for ACT students to know, understand, value and be able to do from preschool to year 10. Schools must decide how they will organise their curriculum to maximise opportunities for students to develop the knowledge, understandings, skills and values contained in each Essential Learning Achievement.

In the band "Later childhood", year 3-5 there are six Essential Learning Achievements that are generic

1. The student uses a range of strategies to think and learn.
2. The student understands and applies the inquiry process.
3. The student makes considered decisions.
4. The student acts with integrity and regard for others.
5. The student contributes to group effectiveness.
6. The student uses Information and Communication Technologies effectively.

Other ELAs that may apply are

7. The student creates, presents and appreciates artistic works.
14. The student manages self and relationships.
15. The student communicates with intercultural understanding.
17. The student chooses and uses measures.
19. The student understands and applies scientific knowledge.
20. The student acts for an environmentally sustainable future.
21. The student understands about Australia and Australians.
22. The student understands and values what it means to be a citizen within a democracy.
23. The student understands world issues and events.
24. The student designs, makes and appraises using technology.

New South Wales

Curriculum links in the following areas of Stage 3 (years 5 & 6) have been identified.

Science and technology

example : *Research the cause and effect of natural disasters*

English

example : *Communicate using a range of media*

HSIE

example : *talk about and identify different roles and responsibilities within the school and community.*

Northern Territory

Studies of Society and Environment learning area			
Strand	Element	Band	Link
	Natural Systems	3 (End of Yr 6)	Explicit: identify how natural systems respond to changing conditions and research/debate issues arising, for example bushfires Implicit: investigate the impact of natural disasters on a community
Science learning area			
Strand	Element	Band	Link
Concepts and Contexts	Earth and Beyond	3 (End of Yr 6)	Explicit: catastrophic events and changes in earth's crust and atmospheric interactions
Health and Physical Education learning area			
Strand	Element	Band	Link

Promoting Individual and Community Health	Individual Community Health and Safety	2–5 (Yrs 4-10)	No explicit references. Implicit potential to broaden concept of risk and safety and action plans for emergencies beyond health perspective (includes fire drills and fire safety plan). Developing ability to develop first aid skills and knowledge
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Queensland

P-12 Curriculum: example of a New Basics Rich Task relevant to natural disasters is *When things go wrong*. Reference on website to inclusion of current issues in integrated units of work: examples are bushfire prevention and the tsunami disaster (December, 2004).

Health and Physical Education key learning area		
Strand	Level	Link
Promoting the Health of Individuals and Populations	2–6 (End of Yr 3-10)	Implicit: potential to broaden concepts of challenge, risk and safety and action plans for emergencies beyond health perspective – one of the examples given is fire. Developing first aid skills and knowledge

Science key learning area		
Strand	Level	Link
Science and Society	3, 4, 6 (End of Yr 3-10)	Implicit: applications of science on communities and environments

South Australia

Society and Environment learning area		
Strand	Standard	Link
Place, Space and Environment	3 (End of Year 6)	Explicit: examples include prevention, control and clean up after devastation caused by hazards

Victoria: Victorian Essential Learning Standards (VELS)

VELS – Strand: Discipline-based Learning		
Domain	Level	Link
Humanities: Geography	4 (End of Yr 6)	Explicit: natural processes (cyclones, earthquakes, bushfires) and how people prepare for, react to, and manage natural disasters
Science	4 (End of Yr 6)	Implicit: investigating locally based issues (could include bushfires)

VELS – Strand: Physical, Personal and Social Learning		
Domain	Level	Link
Health and Physical Education	3–6 (Yrs 4 – 10)	No explicit references. Implicit potential to broaden concept of hazards and risks and safety beyond health perspective

Western Australia

Science learning area			
Outcome	Component	Level	Link
Earth and Beyond	Earth forces and materials	4	Explicit: catastrophic events (earthquakes, tidal waves) – causes and impacts.

Society and Environment learning area			
Outcome	Component	Level	Link

Place and Space	Features of places; People and places; Care of places	5	Explicit: natural processes such as tectonic forces
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Health and Physical Education learning area

Outcome	Component	Level	Link
Knowledge and Understandings	Natural systems	1-7	No explicit references. Implicit potential to broaden concept of risk and safety and action plans for emergencies beyond health perspective