

# Environmental Art Project 2024

# Conservation and Protection of Local Waterways

Let's protect our water future



Image: Stories of Our Waterways Jarnda Councillor-Barnes, giclee fine art print 2024

## ENVIRONMENTAL ART PROJECT (EAP) EDUCATION RESOURCE

Project Partners: Mundaring Arts Centre Inc, Department of Local Government Sport and Cultural Industries, Water Corporation, Shire of Mundaring and City of Swan.















#### ABOUT THE PROJECT

The Environmental Art Project (EAP) is an annual initiative encouraging primary school and homeschool students to explore local environmental issues, whilst developing their own positive message about protecting ecosystems.

#### THEME: CONSERVATION AND PROTECTION OF LOCAL WATERWAYS

In 2024, students across the City of Swan and Shire of Mundaring are invited to create an A4 artwork investigating and depicting their creative ideas for the conservation and protection of local waterways and the important elements that work together to maintain aquatic ecosystems.

Through this project, students explore the theme and areas of focus to understand and present their solutions for cleaner and more sustainable waterways.

In addition to this Education Resource pack, school incursions and artist-led workshops are available to schools to extend and enhance learnings and to inspire a future generation of changemakers.

All student artwork is celebrated in an exhibition at the Midland Junction Arts Centre and presented online, with winning artworks selected to be transformed into public outcomes such as banners for the Mundaring Town Centre.



Living on the world's driest inhabited continent we understand that water is a precious resource. We all play a part in the protection and conservation of our local waterways and this year's project guides students to understand how these ecosystems work, how they are changing, and depict their creative solutions to reduce impact, restore and protect our water future.

#### AREAS OF FOCUS

#### LOWER PRIMARY YEARS 1 - 3

What makes a healthy waterway?

Students are to investigate the components of a healthy waterway. Their artwork should depict a thriving aquatic ecosystem and highlight the importance of the various elements that work together to sustain it. The artwork could include potential threats to this environment.

#### Explore & investigate:

Local creeks, wetlands, rivers, lakes or water catchment areas.

Identify the features of a healthy aquatic ecosystem and how they work together.

Illustrate the journey of water and its treatment from the sky to the tap.

Vegetative Filters: Study how vegetation layers cleanse pollutants and maintain salinity levels.

Pollutants: Examine methods for removing manmade toxins, pollutants and waste.

#### UPPER PRIMARY YEARS 4 - 6

How can we protect or improve the health of our waterways?

Students will select one type of waterway (creek, wetland, river, lake, or water catchment area) to investigate. They will explore the elements that maintain a healthy ecosystem and identify at least one threat to this environment. Their research and artwork should also propose ways to improve the waterway's health.

#### Explore & investigate:

Threats to our water ecosystems and explore methods for protection and improvement. This might include:

First Nations Water Management: Extracting learnings for ecosystem protection.

**Tree Canopy Programs:** Understanding their role in ecosystem health.

Water Supply: Understanding the role of catchments and water treatment.

**Vegetation strategies:** Examining understory, wetland, and creek line planting.

Invasive Species: Methods for removing introduced plant and animal species.

Pollution Reduction: Strategies to reduce man-made pollutants and waste.

Groundwater Conservation: Addressing issues of excess removal and salinity.

Areas of Focus and Education Resources are provided to inspire creative discovery. Teachers and students are encouraged to merge topics or come up with their unique interpretations that resonate with the essence of *Conservation and Protection of Local Waterways*.

### ENVIRONMENTAL ART PROJECT (EAP) EDUCATION RESOURCE

The EAP Conservation and Protection of Local Waterways Education Resource pack is designed to inspire and assist teachers and students with exploring this year's theme.

MAC Inc.'s project partner, Water Corporation, offer free curriculum-aligned incursions which help students learn about the water cycle, Perth's water supply, water in Aboriginal culture, and how we can all be waterwise.

Waterwise School Program - Water Corporation

#### Environmental Art Project (enviroartproject.com.au)

Local Government partners the City of Swan and Shire of Mundaring support a number of Friends and Environment Groups, newsletters and replanting initiatives for schools that wish to participate in additional water protection activities.

\*See Get Involved

#### **EXPLORE & INVESTIGATE**

https://www.watercorporation.com.au/Our-water What is a waterway? | Healthy Waterways What are waterways? | www.wa.gov.au

In addition to the Areas of Focus outlined in the EAP Project information, teachers may like to start the journey by asking students to reflect on:

- What are different types of waterways? Create a word wall, i.e. river, stream, creek, brook, watercourse, spring, dam, lake, wetland etc.
- What is a healthy waterway?
- Why are waterways important?
- Where does the water come from?
- What does it mean to "protect" our waterways, what are we protecting them from?
- Where are our local waterways located?
- Think about the types of waterways near you E.g. seasonal creeks, wetlands, rivers, lakes.
   Do you know of any significant cultural stories or built infrastructure sites relevant to our local waterways?

#### RESEARCH

Water and waterways - ABC Education (2.5min | All Years)

<u>Healthy Rivers - YouTube</u> (5min | All Years)

The water cycle - ABC Education (3.5min | All Years)

The State of Our Rivers - Restoring our rivers, naturally - YouTube (1.5min | All Years)

Water pollution | Water Contamination | Video for kids - YouTube (2.5min | Lower Primary)

Water Pollution for Kids | Learn How to Keep Our Water Clean - YouTube (7min | Upper Primary)

#### INCURSIONS AND EXCURSIONS

#### WATER CORPORATION

FREE incursions with the Waterwise School Program available throughout the school year:

- Water Conservation (PP Yr 7): Students learn about the importance of water for themselves and the environment, as well as the value of conserving water. Students will identify how their households can reduce water use.
- Water Supply (PP Yr 7): Students learn about the protection and treatment processes of our water sources. Students learn about Perth's drinking water sources and how they have changed over time, along with the need to protect our catchments.
- Water in Aboriginal Culture (Yr 3 Yr 7): Students learn about the strong connection Aboriginal people have with water and why. The 60,000-year-old water management and conservation practices taught in this incursion inspires students to learn about the difference they can make to our water future.

In addition to incursions, Water Corporation has online lesson plans, virtual lessons, virtual tours and an activity library to enhance students' knowledge of water conservation, treatment and supply.

The Water in Aboriginal Culture journey includes multimedia activities and plug-and-play teaching tools to provide a platform for students to learn about ancient Aboriginal knowledge and practices.

- <u>Water Supply and Water Conservation</u>: this program includes a range of school-based activities such as incursions, workshops, virtual tours, virtual lessons, online interactive activates and lesson plans for years K-7.
- <u>Water in Aboriginal culture</u>: this program includes workshops and incursions for years 3-7, as well as the <u>Walk with the Waugal 360 experience</u>.

**NEARER TO NATURE SCHOOLS -** Department of Biodiversity, Conservation and Attractions FREE and low-cost activities, including curriculum-linked school incursions, excursions and professional development. <u>Nearer to Nature Schools (dbca.wa.gov.au)</u> or watch <u>Nearer to Nature Schools Program (YouTube.com)</u>.

Primary School Programs (incursions & excursions):

- Perth Metro and Perth Hills: <u>2024 N2N Summary table Kindy-Year 6</u> (Refer to the 'Rivers and Wetlands' theme in the link above.
- Canning River: <u>2023 N2N CREEC Years Kindy-12 program summary</u> (Refer to the 'Rivers and Wetlands' theme in the link above. Click on program name links for more information about the specific programs.)

**SERCUL** (Southeast Regional Centre for Urban Landcare)

An independent, not-for-profit, community environmental organisation who provide water catchment education programs via incursions, excursions, workshops and online resources. For Educators – SERCUL

#### INCURSIONS AND EXCURSIONS

May be FREE depending on where your school is located.

Programs offered:

Algae Busters Catchment Story (Yr K-6, 1hr);

Turtle-ology! (Yr K-6, 1hr);

Macroinvertebrates and Minibeasts (All years, 1hr);

Life Cycles: Frogs, Mistletoe or Dragonflies (Yr 3-12, 1hr);

River Food Web (Yr 3-12, 1hr);

Go Fish! (Yr 3-12, 1hr);

Clean Drains River Gains (Yr 3-12, 1hr+);

Planting Opportunities (All years, June-October);

River Friendly Cleaning (All years, 1hr);

Building a Frog Habitat (All years, 1 hr);

Being Mozzie Wise (All years, 1 hr);

Aquatic Weeds (Yr 3-12, 1hr).

Freshwater Fauna Project, Resource Kits, Resource Sheets. Resources for Schools 2024.pdf

Educational <u>Publications – SERCUL</u> for downloading.

Educational Products & Resources - SERCUL for purchasing.

YouTube videos: <u>SERCUL Phosphorus Awareness Project - YouTube</u>. <u>Including Healthy Rivers Presentation (15min) upper primary</u>.

#### **RIVER GUARDIANS**

FREE Junior Dolphin Watch incursion which includes an interactive presentation and hands on activities. <u>School education – River Guardians</u>.

THE WETLANDS CENTRE (COCKBURN) Walliabup Wetland Education, Six Season Planting, Discovering and Saving Our Snake-Necked Turtles, and Discovering Wetland Macroinvertebrates. Our School Programs – The Wetlands Centre Cockburn.

CANNING RIVER ECO EDUCATION CENTRE (CREEC) Schools (canning.wa.gov.au)

Excursions at CREEC creec-school-excursions-brochure.pdf (canning.wa.gov.au).

#### **GET INVOLVED**

If you want to do more to protect waterways in your local area, you may be interested in the following:

**WATERWISE VERGE** – create a waterwise verges that uses less water and fertiliser than traditional lawn verges. They save you money, have better environmental values and protect our waterways. Water Corporation | Creating a waterwise verge.

RIVER RANGERS (CADET PROGRAM) Years 5-6 – join the River Rangers, which is a voluntary program that is largely conducted outside classroom time. The program seeks to engage and educate the next generation of children to help us protect our local rivers. River Rangers | Department of Biodiversity, Conservation and Attractions (dbca.wa.gov.au)

SHIRE OF MUNDARING (SOM): CATCHMENT GROUP OR FRIENDS GROUP - consider volunteering with one of our Friends or Catchment groups. Friends and Catchment Groups are volunteers who undertake landcare and bushcare activities to protect and restore natural areas. Catchment and Friends Groups (Volunteers) » Shire of Mundaring. Catchment Groups work to improve the health and habitat values of our rivers and waterways.

Helena River Catchment Group

Jane Brook Catchment Group

Susannah Brook Catchment Group

**SOM: SIX SEASONS NEWSLETTER** – read the Shire's environmental newsletter to keep up to date on the information, updates, upcoming events and inspiration for environmental sustainability initiatives within the shire. Newsletter (Six Seasons) » Shire of Mundaring.

**SOM: SEEDLINGS FOR LANDCARE** – register for free native seedlings for planting on rural-zoned private properties, school grounds and bushland reserves in the Shire.

CITY OF SWAN (COS): THINK GREEN – free community sustainable living workshops held at the City's libraries and other local venues. <u>City of Swan - Thinking Green</u>.

COS: FRIENDS GROUPS - consider volunteering with one of our Friends Groups. Friends Group usually consists of a few people working together to conserve and protect a local reserve under the management of City of Swan.

**COS:** FREE TREES AND PLANTS GIVEAWAY – register for free native, waterwise seedlings for planting on urban and rural properties.

#### ONLINE RESOURCES

HEALTHY RIVERS PROGRAM (DWER) – <u>South-west rivers - Healthy Rivers (dwer.wa.gov.au)</u>. Includes links to explore rivers, and aquatic fauna and flora. The 'rivers' tab includes a video on the "The value of rivers" and a diagram of the pressures and impacts on our river system.

CATCHMENT CARERS TRAIL – a teacher resource developed by Nearer to Nature, Water Corporation and DBCA. Explores the relationship between how we use our water catchments and the quality of the water we drink. Visit the 'Teacher resources' tab and click on the link under the 'Primary school' heading.

SCHOOL OF NATURE AND CLIMATE: Protecting Our Waterways Curriculum Activity — CERES School of Nature & Climate (Years F-2) / Teacher Notes / (ceres.org.au) https://school.ceres.org.au/resourcesmart-hub/classroom-activities/

<u>Turtle Watch Education Kit | AAEEWA</u> - Downloadable environmental education program (K-7) that links directly to the Australian Science Curriculum and integrates the three cross curriculum priorities and general capabilities.

Michele Gierck: Picture book about waterways and teacher resources. <u>Gladys and Stripey - Michele Gierck / Teacher notes (pdf) / Activities (pdf)</u>

How did Aboriginal peoples manage their water sources?, Dept of Resources QLD.

<u>Teacher Resource for Canning River Regional Park Trail with map</u>. Self-guided trails for different year levels, approximately 50 mins to complete.

<u>Rivers of Emotion booklet</u> students will explore the deep emotional and historical significance of the Derbarl Yerrigan and Djarlgarro Beelier (Swan and Canning Rivers). Suitable for all ages.

HERDSMAN LAKE DISCOVERY CENTRE - School and Group Excursions | WA Gould League

<u>Excursions</u>: Living Things (Yrs K-3), Wildlife Explorer (Yrs 4-6), Noogenboro Kudajin Boodja (Yrs K-12), Boorloo Aboriginal Education and Cultural Awareness (Yrs K-12), Nature Journaling (Yrs 3-12)<u>Incursions / Virtual Sessions</u>: <u>Environmental Education Incursions</u> (Yrs K-12), <u>Virtual Excursions</u> (Yrs K-12)

Online Resources: Pre and Post-Excursion Resources, Online Wetland Surveys, Native wildlife.



#### COUNCIL RESOURCES

#### SHIRE ON MUNDARING

Wetlands and Watercourses

The Value of Fringing Vegetation (Watercourse) by Una Bell (PDF) - FREE hard copies available.

Waterwise Homes and Gardens

#### CITY OF SWAN

Waterways and wetlands brochure.pdf

<u>City of Swan - Education</u> » Protect waterways

#### LITERATURE RESOURCES

Children's books related to 'Protecting our Waterways'.

Check out your local library catalogue for availability.

Lower Primary (Years 1-3) Children's Books:

- The River / Sally Morgan (2021). Read aloud:
   The River (read aloud) Dreamtime Story YouTube
- Big Fella Rain / Beryl Webber (2017).
   Big Fella Rain (read aloud) (YouTube)
- Wilam A Birrarung Story / Aunty Joy Murphy (2019).
   Wilam (Read Aloud) (YouTube)
- Splosh for the Billabong / Ros Moriarty (2015).
   Splosh for the Billabong (read aloud) (YouTube)
- The Mess That We Made / By Michelle Lord (2020).
   The Mess That We Made (Read Aloud) (YouTube)
- Turtle-Taxi / Guundie Kuchling (1998).
   Turtle Taxi (read aloud) (YouTube)
- Flood / Jackie French (2011).
   Flood (read aloud) (YouTube)
- Desert Lake: The Story of Kati Thanda-Lake Eyre / Pamela Freeman (2016). Read aloud: <u>Desert Lake (read aloud) (YouTube)</u>
- A River / Marc Martin.
   A River (Read Aloud) (YouTube)

#### Upper Primary (Years 3-6) Children's Books:

- Water: Protect freshwater to save life on Earth / Catherine Barr (2022).
   WATER protect freshwater to save life on Earth Catherine Barr Books
- A focus on freshwater environments / Jane Hinchey (2019)
- Yakkinn the Swamp Tortoise The Most Dangerous Year / Guundie Kuchling (1996)
- Yakkinn the Swamp Tortoise Survival / Guundie Kuchling (1996)
- Gladys and Stripey: Two little fish on one BIG adventure / Michele Gierck (2023)
- Wilam A Birrarung Story / Aunty Joy Murphy (2019).
   Wilam (Read Aloud) (YouTube)
- The Little Corroboree Frog / Tracey Holton-Ramirez (2013).
   The Corroboree Frog (read aloud) (YouTube)
- What Would Happen Do You Suppose? / Julie Parker (2020)
- The world's wildest waters / Catherine Barr (2023).

  The World's Wildest Water: Protecting life in seas, rivers and lakes Catherine Barr Books
- A shorebird flying adventure / Jackie Kerin (2022).
   A Shorebird Flying Adventure (Preview) (csiro.au)
- Wild child: a journey through nature (The River) / Dara McAnulty (2021)
- A frog's life / Irene Kelly (2018).
   A Frog's Life (Read Aloud) (YouTube)
- Saving turtles: a kids' guide to helping endangered creatures / Sue Carstairs (2014)

For more information or to arrange a MAC Inc. facilitated incursion, contact Jessica Knight iknight@mundaringartscentre.com.au



A selection of student works from EAP 2016; (From left) Reece Fletcher, Grace McLeod, Jack Philips, Kaleb Maunders, Michael Jones.