

Ginninderra Catchment Group Schools Resources and Education Programs 2007



The **Ginninderra Catchment Group** is an umbrella group for Landcare, Waterwatch and Frogwatch volunteers in the Belconnen, Gungahlin and Hall region. We provide a number of environmental educational services for school and community groups in the region, through our Waterwatch and Frogwatch Programs. We are one of 3 Catchment Groups in the ACT region.



Waterwatch provides a free and flexible environmental education program that is hands-on, interactive and a great way to learn about your local waterway and environment. Students can participate in a range of exciting water quality monitoring techniques including Waterbug Snapshots and physical and chemical monitoring, while learning about important catchment health and water quality issues. The Waterwatch Coordinator delivers field activities at your local waterway and all equipment is provided.



The **Frogwatch** Education Program provides a free Frogwatch Education Kit that includes lesson plans, background information and ideas for classroom and other activities. Follow-up support and ideas for on-ground action are also available from the Frogwatch Education Officer.



Landcare and Parkcare groups operate across the Ginninderra Creek Catchment to improve and sustain the health of the catchment landscape; including on public lands and reserves. These volunteer groups are affiliated with the Ginninderra Catchment Group with provides coordination and support. Landcare and Parkcare groups undertake a range of on-ground activities including landscape revegetation, weed control, creek rehabilitation and wetland development and management. They also provide local support to the Ginninderra Catchment Group in the delivery of environmental education and awareness programs to schools and the broader community.

Ginninderra Catchment Group activities are financially supported by the ACT and Australian Governments and are underpinned by a number of major strategies and plans including the Ginninderra Catchment Strategy, the ACT Natural Resource Management Plan and the Murrumbidgee Catchment Blueprint.

For more information, please contact:
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Catchment Coordinator - landcare@ginninderralandcare.org.au

PROGRAM DETAILS

WATERWATCH OPPORTUNITIES

Waterbug (macro-invertebrate) Snapshot

The Ginninderra Waterwatch Coordinator will lead a field trip to a local waterway, where students explore the variety of insects and other aquatic bugs that are living in the water. Students will be introduced to concepts around biodiversity, habitat, stormwater, food webs to fit in with class units or activities, as relevant, while participating in an exciting hands-on activity.

The structure and content of the activity is flexible, and will compliment learning programs for K-6, secondary, tertiary and adult education.

- Discussion can cover a variety of water-related topics listed below, and can be modified according to age group and class-specific needs.
 - The Ginninderra catchment – what’s a catchment?
 - The water cycle
 - Aquatic habitat – what’s important for bugs (and other life) to survive in urban environments
 - Food webs – who eats who?
 - Stormwater pollution – where does it come from and what can we do about it?
Relationship between landuse / land management and pollution.
 - The difference between stormwater and sewage.
 - Management of stormwater – “water sensitive urban design” eg how do the ponds work to improve water quality?
- Ideally class groups will travel to a local waterway, but in-class sessions can be arranged as an alternative if needed.
- The bug snapshots are available in spring (October to end term 4) and autumn (Mar-May) only, due to weather conditions and fluctuations in bug populations.
- The session generally runs for approximately one hour, depending on the age of students and other needs.
- 1 class at a time (a number of classes can do the activity consecutively over a day). Class groups must be supervised by a school teacher at all times.
- The Waterwatch Coordinator will provide all the equipment needed.

Drip the Drop

- The Waterwatch Coordinator can provide an in-class demonstration (with the help of students) about stormwater pollution. It is a fun and “eye-opening” activity, suitable as an introduction or follow-up to a larger unit on any water-related issue, especially focussing on stormwater and pollutants in an urban environment.
- Suitable for all primary school levels.
- This activity can be run by the Waterwatch Coordinator at any time throughout the year, and is ideally followed up with a Waterbug Snapshot activity (see above).
- This activity can be done with about 3 classes (maximum) in the one session, but cannot be done consecutively. Takes about 1 hour.
- All equipment is provided.
- Discussion can focus around any of the topics mentioned above.

Physical and Chemical water quality testing

- Students can investigate a local waterway's water quality by measuring temperature, pH, electrical conductivity, and turbidity. This activity is more suited to upper primary and secondary students. (Senior students Year 10 and up, can also test for dissolved oxygen and phosphates – these tests use chemicals not suitable for younger classes).
- Can be done throughout the year. Regular testing (eg monthly) would be most valuable, but can be done say quarterly or as a one-off activity.
- The Waterwatch Coordinator is available to provide introductory training and discussion about related topics including:
 - The Ginninderra catchment – what's a catchment?
 - Why is water quality important and what are we measuring?
 - Stormwater pollution – where does it come from and what can we do about it?
Relationship between landuse / land management and pollution.
 - The difference between stormwater and sewage.
 - Management of stormwater – “water sensitive urban design” eg how do the ponds work to improve water quality?
 - Aquatic habitat – what's important for aquatic life to survive in urban environments
- An initial training session would take about 1.5 – 2 hours.
- 1 class (or preferably half a class) at a time for training. Probably best to do in smaller groups – maybe rotate with other activities?
- Once trained, senior students could conduct tests themselves monthly if desirable.
- The Ginninderra Catchment Group can loan a kit to use for quarterly events. If you wanted to do monthly tests, I'd recommend getting a kit of your own – for all parameters costs about \$950. For just the 3 basic ones, costs about \$600. – we might be able to help with funding for this.

FROGWATCH OPPORTUNITIES

A popular education tool for schools in the ACT and Region, the Frogwatch Classroom Kit provides a variety of lesson plans and activities that will help your students learn all about the fascinating world of frogs.

- Information about local frog species
- All about amphibians and their life cycle
- Threatened species
- Frog habitats
- Curriculum links
- Froggy resources
- And teachers notes.

The ACT Frogwatch Education Officer is available to present the Frogwatch Kit to your staff and provide support for its implementation in your school.

There are also some opportunities for the Frogwatch Education Officer can lead frog-related discussion topics either in the field (as part of another Waterwatch activity eg Waterbug Snapshot) or in the classroom.

Discussion topics can cover:

- Amphibians – what makes them special?

- Local frog species – how can we recognise them?
- Frog habitats – where do frogs live and what can we do to protect their homes?
- Frog adaptations - how do different species survive in different situations?

LANDCARE OPPORTUNITIES

Schools can involve their teachers and students in a range of Landcare activities that have educational, environmental and community enhancement benefits. These activities can be linked to the existing work of Landcare and Parkcare Groups or can be specifically tailored to meet the individual needs of schools.

Activities can include:

- Improving the landscape health of school premises.
- Adopting an area beyond the school grounds for landscape improvement
- Participating in education activities to improve knowledge and understanding of catchment management and the impact of urban and other development on catchment health.
- Receiving training in landscape vegetation.

The Ginninderra Catchment Group is an umbrella group of Landcare, Waterwatch and Frogwatch volunteers in the Belconnen, Gungahlin and Hall areas of the ACT. The primary focus of the Group is the advancement of the health of the Ginninderra Catchment through effective engagement with government, agencies, business and the catchment community. We have a strong commitment to community education and capacity building and seek to create diverse opportunities for people and their local communities to become involved in environmental management, decision making and on-ground action.