



Australian National
Botanic Gardens



Water Strategy



Name _____

School _____

The rainfall patterns in many parts of Australia, including the ACT, have changed markedly in the last 2 years. Since November 2003 the Gardens has reduced water use by 40%. We now have to reduce the water by a further 40%.

This is a big problem for us and we aren't sure how we might keep all our plants alive if the drought conditions continue.

Your challenge in this activity is to investigate some problems in 3 areas of the Gardens, and suggest how we might do things better. Please help us develop a sensible water strategy for the Gardens.



Extension—Water Strategy

12. How would you develop a water conservation strategy for your school or home?
 - What information would you need to gather?
 - What are the important issues to consider? Make some suggestions. Perhaps write a report.
 - Include comments about the consequences to the plants and animals, and consequences for people.

Make some notes here to get you started.



10. So, what's YOUR recommendation?

11. List some of the things that you think might be dependent on this waterfall.
(Hint: listen carefully)

Problem 1—Toxic Ponds

We have come across the following email from the Curator to the Horticulture Staff, concerning some of the ponds in the Gardens.

29 September 2008

Email to all Horticulture Staff

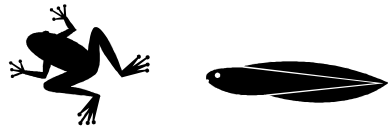
As you are aware, the Gardens negotiated with the ACT government to reduce water to some sections of the Gardens earlier in the year.

One area of concern is the condition of the 2 ponds below the café, and the supply pond downstream from them.

As the weather is getting warmer and evaporation is increasing, we are seeing an algal bloom. The bloom will certainly die off before mid-December and cause big problems.

Can you take a look at the ponds and make your own assessments of the situation? We will then organise a meeting to discuss what steps we should take in dealing with these problems.

Curator of Living Collections.



Make your own investigation of the ponds that are causing concern. Make some notes and drawings as you go.

1. Work out how the ponds operate under normal conditions. Where does the water come from in the first place (the supply), and where does it end up?

2. The pump to the pond has been turned off for over a year now. What problems seemed to have appeared since then?

3. Suggest why there is so much algae in the pond. Some may have died and floated to the top already. Suggest why this might happen.



Problem 3—Wonderful Waterfall

Locate the waterfall and pond at the top of the car park near the footbridge to the café.



This water feature is still working, even though it needs topping up every day. Some people think it should be kept on. Some people think it should be switched off.

9. What do you think? Collect some evidence for both arguments. Use the table below.

Reasons for leaving the water feature ON	Reasons for turning the water feature OFF



Watering the Rainforest plants



7. How can we do things better? You might consider how often we water, how much we use, what time of day.

8. What are the consequences of your recommendations (from Q7) on the plants, and on visitors to the Gardens?



Toxic Ponds



4. Describe what visitors to the Gardens might see (and smell) if the problems aren't fixed by Summer time.

5. How would YOU fix it? Provide some solutions for the Gardens' horticulturists. Why not write a report for the Director! Use the following page.

You can use this space to make a sketch of the pond.



Problem 2 Watering the Rainforest plants

Rainforest plants need lots of water. Head into the rainforest gully and work it out for yourself.

Look for the watering system – sprinklers and sprays, which are all on timers.

6. What are we doing well?



Make some sketches here.



Your name _____
Your School _____
Your school address _____

Date _____

The Director
Ms Anne Duncan
Australian National Botanic Gardens
PO Box 1777
CANBERRA ACT 2601

Dear Ms Duncan,

On a recent school excursion to the Australian National Botanic Gardens, my class discovered that the large pond was...

I suggest that you could...

Yours sincerely,