

'When Waterwatch Becomes Dry!' – Strategies to ensure Waterwatch stays active in an arid climate

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Objectives and Key Learnings

- Discover ways Waterwatch can stay active in a dry environment
- Find out alternate ways for Waterwatch to engage and educate the community on catchment health other than direct monitoring.
- Development of activities/strategies where Waterwatch can engage communities in an arid climate for the long term.
- Participants armed with a number of new activities, ideas and strategies that can be implemented in their region.

The Mallee Catchment

The Mallee Catchment covers an extensive area of North West Victoria of close to 43,000 square kilometres. The catchment supports an estimated 65,000 people with agriculture utilising 62% of the land. The region's semi-arid climate supports various primary industries including Victoria's largest cereal, citrus, vine and fruit growing activities. The Mallee region is agriculturally diverse and includes extensive dryland cropping and grazing regions. Approximately 38% of the Mallee region is public land that consists mainly of parks. Most of the creeks, streams and wetlands are ephemeral and are predominantly dry. The major water body is the Murray River, although legally in New South Wales, it is the principle source of permanent regulated water to the region.

The Western Wimmera Catchment

The western Wimmera comprises that area between the Wimmera River and the South Australian border, and is made up of a number of small towns with a relatively sparse rural population. Most of this area can source groundwater for the main access to water supply – apart from this, much of the landscape can only provide poorly defined catchment/drainage systems, with most streams, creeks and drains being ephemeral in nature. The south western section of this sub-region does, however, boast some of the most diverse wetlands in Australia, with a series of lakes, swamps and wetlands being connected by intermittent creeks and drains. The current problem from a water monitoring/education perspective is that 80% - 90% of these waterbodies have been dry over the last 4 – 5 years, so alternative strategies have had to be developed to make Waterwatch relevant in these areas.

Waterwatch in Dry Areas

Due to the dry nature of the Mallee and the western Wimmera regions, both Waterwatch programs have had to adapt in order to keep the program relevant. Some of the adaptations/strategies implemented are listed below. While both the Mallee and Wimmera Waterwatch programs have a number of methods and activities, we are always looking for new ideas to improve our program. A large proportion of this workshop will be set aside for the sharing of ideas and activities. As such, participants in this workshop are encouraged to bring a sample of ideas and activities to share with the rest of the group.

Conducting water quality monitoring on bores, rainwater tanks and dams

Groundwater has played a vital role in the development of many areas of Australia. Some twenty per cent of Australia's total water use is from groundwater sources. The extensive use of groundwater provides a real reason for communities to monitor the quality of this resource, as in some areas this is the only water supply. This helps build community capacity and provides them with information immediately on the quality of their water supply.

Rainwater tanks provide an important supply of water both for domestic and agricultural use. In arid areas where broadacre cropping is the dominant agricultural land use, many farmers rely on rainwater tanks to supply water for spray application. Many agricultural chemical sprays require certain levels of pH and water hardness for the chemical to work effectively. By providing simple to use kits farmers are able to monitor these parameters and ensure their sprays are working effectively thus reducing the risks and potential increased costs associated with ineffective spray use.

Dams are an important water source that should not pass water monitors. Dams often suffer from problems such as turbidity, chemical and bacterial contamination, salinity, pollution and reduced oxygen. This can make the water undesirable for domestic and stock supply. By encouraging farmers to monitor these parameters they are able to assess the quality of their water and are then able to manage the dam and the surrounding area effectively.

Presentations on responsible camping/recreational use of waterways

When visiting dry areas of the Mallee region away from the Murray banks, often students have either never seen the Murray or only visited it when camping, fishing or using it for other recreational activities. It is important to visit these groups, educating them about the importance of the river and to introduce correct camping and recreational practices. In doing this, students are able to gain an understanding of the human impacts on the river helping to minimise any impact they may have when visiting a waterway. Discussions about the impacts in removing vegetation, erosion, track rationalisation, removal of logs, the importance of bollards and litter control as well as cultural heritage values. A number of these concepts are often new to a group due to their infrequent encounters with waterbodies.

Build a River

Mallee Waterwatch has turned a blue sheet into a diverse “river” system. Students begin with the sheet on the floor and are asked “is this how a river looks?”. Slowly the class builds the river adding things like stormwater drains, fish, weirs, rocks, macro invertebrates, in stream vegetation, litter, logs, frogs and they sometimes are even able to act out a recreational activity that people may be doing along the river (like camping and fishing). Students are then able to look at each component individually and discuss their importance, problems and how they interact within the system. The group then goes on to remove aspects of the river system and discuss potential impacts.. This gives students a broader understanding of the workings of an river ecosystem.

Other activities include:

- The Catchment Story which is a great educational tool to increase awareness on impacts on our catchment;
- Top-to-Tail which allows students from dry areas to see a full blown catchment in operation;
- River/creek walks to look at different features of a river system, even when they are dry;
- Taking water bugs to schools and field days in dry areas which exposes people of all ages to the value and role that these critters play; and
- Using water available or bringing water samples to the school for testing. This provides not only training on water quality monitoring, but also exposes them to a number of the water quality issues in the region.

Partnerships

Collaborative partnerships have been a feature of the way many organisations work in the Wimmera and Mallee regions, particularly with the Waterwatch program. “Why do everything from scratch yourself?” Over the years, both Wimmera and Mallee Waterwatch have joined with a number of organisations to deliver programs, events or activities of varying length to the schools and general community in our regions. What becomes apparent is that other NRM agencies and community groups are looking for co-operative endeavours as well – “to share the load”. This approach provides greater opportunities to broaden the experience of target groups and presents an integrated program and consistent messages across any programs that are offered. A secondary benefit is the higher level of knowledge and co-operation which develops between the agencies themselves. Examples of these success stories will be presented to encourage participants to look for co-operative opportunities.

Why it is important

Expanding Waterwatch to dry areas is necessary in keeping all communities in the region educated on catchment health. Schools and groups in these communities often appreciate being included as many other programs are not delivered in rural and isolated areas.. Many students in these communities are off farms and rarely travel out of their local area, the Waterwatch program is a good way to get them thinking about the ‘bigger picture’. Holding in-class education sessions, sometimes in partnership with other agencies, helps to incorporate the Waterwatch program even when waterbodies are limited or inaccessible. This eliminates travel costs for schools and most importantly, saves students missing out on valuable environmental education. This involvement at a local level can prompt action amongst students within their school and at home, by changing habits and using water more efficiently. It also gives them a greater appreciation for our diverse waterways when they visit them.

Farmers are often willing and grateful for the opportunity to become water monitors, rather than sending water off to a lab for testing, they can do on the spot tests. Even if the results are the same week in week out, it can give a greater sense of control over their water use and farm management.

Conclusion

Involving schools and community groups in the Waterwatch program is just as important for those that live in dry areas as it is for those who live near waterbodies. We all rely on good water quality for our well being. Through involving the dryland areas in Waterwatch, we are providing valuable education service on water quality issues that these people can take with them wherever they go. Education encompassing the whole catchment is vital. By developing partnerships and strategies for dry areas Waterwatch is able to focus on broader catchment and river health. Programs in both the Mallee and Wimmera are evolving to reflect river health policy changes at State level. We hope these strategies will continue to develop as more community members become aware of catchment and river health issues.

The following points will be workshopped with the group. This will include discussions, activity presentations and workshopping of new ideas.

1. Barriers to community involvement in Waterwatch in Dry Areas and arid climates.. A facilitated discussion will take place with the problems that regions face implementing Waterwatch in dry areas. This is an opportunity for participants to present problems within their region to gain group feedback on this issue.
2. Activities and strategies used by other regions.. This is an opportunity for participants to showcase and share some of the fantastic activities/strategies being implemented in your region.
3. Develop two activities in detail that could be used by groups. Depending on time, two issues raised in item one will be workshopped as a group to develop activities in detail. This will then become a shared resource for all interested Waterwatchers.
4. Future for the group - booklet, email group etc. Finally, a discussion of the future of the group will be held. This may include development of a contact list or a forum for future discussion of issues in dry areas.

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