



ASTA Science Awareness Raising Project

QUEENSLAND CASE STUDY:

A Clean Currumbin Creek

The purpose of the Queensland case study is to illustrate the adaptations made by the Palm Beach Currumbin community to the ASTA Science Awareness Raising Model.

The case study has been prepared from information collated from the project proposal, mid-project report, teleconferences, final project report and STA Coordinator feedback.

Background

Palm-Beach Currumbin State High School has a student population of over 1800 students and is situated on the northern bank of Currumbin Creek. Currumbin Creek is a major creek flowing eastwards from Mount Cougal through to the ocean at Currumbin. The activities of the high school can have a significant impact on the creek environment.

A council reserve consisting of mangroves and a board-walk separates the creek from the school. Students and community members use the creek for water activities such as kayaking, canoeing, fishing, sailing and snorkelling and the board-walk for exercise and recreation activities.

The southern bank of the creek is well grassed, has many shade trees and features numerous picnic spots and BBQ areas. This bank provides public access to the waterway via numerous boat ramps.

The Currumbin Beach catchment is an important ecosystem to those living in the Palm-Beach Currumbin area. The community is concerned about the quality and type of litter being washed up via the drains into Currumbin Creek, the surrounding wetland and ultimately into the ocean via Currumbin Ally.

Aim of the project

The project aimed to raise student and community awareness about:

- why science is important
- why time is spent on science at school
- why scientific literacy is a desirable outcome for all students.

This will be through two projects:

1. an investigation of the litter washed into the local Currumbin Creek catchment area
2. dune restoration at the mouth of the creek.

Students and community participants would be involved in environmental science activities to identify the origin of the litter and strategies for reducing the quantity in the creek environs. Information about the process and findings would be communicated to the wider community.

Project Involvement

Palm-Beach Currumbin State High School science teachers and students from Year 11 & 12 Marine and Aquatic Practice and Year 8 Science were the

key project organisers and participants.

Local interest groups involved in environmental conservation work in the area, assisted students with the project. These groups were:

- Gold Coast and Hinterland Environmental Council (GECKO)
- Palmy Army (Palm Beach Life Saving Club Volunteers)
- Environmental Council
- Waterwatch (Gold Coast City Council).

The Surf Rider Foundation, Gold Coast, was a signatory on the original project submission but did not have a role in the project.

Doing the project

There were significant delays in getting the ASTA project underway in Queensland.

...as late as April/May there had been very little direct community consultation. STA Coordinator

Palm-Beach Currumbin High School found it difficult at first because school structures and organisational structures outside schools do not always blend.

Local Leader

Support provided to the Local Leader to get the project started and to establish the Community Reference Committee (CRC) included:

- April 2002 – a face-to-face meeting between the Science Teachers Association (STA) Coordinator and Local Leader to disseminate the trial Package and timelines and discuss how the community was being involved
- 11 June 2002 – an initial meeting of the CRC including the STA Coordinator to identify the project focus and begin planning.
- 14 June 2002 – a follow up CRC meeting with the ASTA Project Assistant. The purpose of this meeting was to define the scope and outcomes of the Queensland project, determine the project timeline and reporting

requirements, formulate the budget, and clarify the project evaluation process. At the time of this meeting the Package had not been distributed to the CRC.

The CRC membership comprised Palm Beach Currumbin State High School science teachers and a GECKO and Palmy Army representative. The recorded meetings of the CRC were the two convened in June. The meeting notes were taken by the STA Coordinator and ASTA Project Assistant.

Communications between the Local Leader and the STA Coordinator was difficult and this caused delays in ensuring that the school developed a strategic plan that followed the guidelines (Package) and that was workable to achieve the stated goals.
STA Coordinator

Subsequently, any communications the STA Coordinator and ASTA Project Assistant initiated with the Local Leader, did not receive a timely response. The definitive project work plan and budget were eventually submitted to the ASTA Science Awareness Raising Project Reference Group in August 2002. As a consequence a representative sample of community members was not available for pre- and post-project interviews.

This extended timeframe impacted on the project by delaying the planning and implementation. Subsequently, the Queensland project was undertaken in the four weeks of August 2002.

Student Activities

The project was undertaken by two groups of students as two separate projects.

1. The main project was Clean Currumbin Creek undertaken by Year 8 Science students. The activities involved with this project included:
 - negotiation of project outcomes
 - development of a project schema
 - identification of areas where litter collects and creek run-off points from a map

- analysis and classification of litter
- research into alternative methods of packaging using the principles of reduce, reuse and recycle
- evaluation of the consequences of interactions between the living and non-living parts of the environment
- preparation of a report on the investigation findings
- design of a poster giving an overview of the project.

2. The second project was dune restoration undertaken by Year 11 & 12 Marine and Aquatic Practice students. The project activities included:

- participation in the Palmy Army's Clean Beach Challenge – a campaign to clean up Palm Beach
- water sampling along the creek
- propagation of native grasses from seed hydroponically
- planting of grasses into the dunes.

Science experiences for students from executing the project

Strategies involved in collecting and using the scientific data included:

- plant identification, germination and propagation
- invertebrate identification and conservation
- restoration of native vegetation
- sampling and analysis of creek water and litter
- mapping creek run-off and litter collection areas
- research through libraries and the internet
- design and construction of a community survey.

School and broader community awareness raising strategies included:

- interview of four students by NBN News (local television) for the City Council Awards for Clean Beaches on the Gold Coast
- news item in the *Gold Coast Sun*
- articles in the school newsletter
- project information was presented at the Gold Coast City Council Forum
- signs erected in the dunes by the Palmy Army acknowledging the support of Palm-Beach Currumbin State High School students
- a display of students work outside GECKO House for a half day. Students discussed their work with community members attending the GECKO meeting
- a survey was undertaken at the display venue with community members attending the GECKO meeting. The survey sought community attitudes to Currumbin Creek, the school's success in raising community awareness of science, and ideas for further partnerships with the community.

The final project report included nineteen copies of the completed survey forms. However no analysis of the data was included in the report nor reference to how the data would be used to further science awareness raising in the community.

Project outcomes

The reported achievements resulting from the ASTA Science Awareness Raising Project focus on the benefits to participating students and include:

- winning the Clean Beach Challenge
- working with adults on a 'real' science issue
- making school science relevant to everyday life
- contributing to community projects and making a difference

- further development of student presentation and public speaking skills
- the formation of the committee *Palm Beach Dune Dragons* by students to develop a program to enhance their local environment
- development of school relationships with community organisations.

Project continuation beyond the trial

The Local Leader believes *that schools should be looking towards partnerships with outside organisations. Science classes could 'tender out' their skills as well as apply their knowledge to working with the community to enhance the quality of life for all members of the community.*

A grant from the Gold Coast City Council will enable conservation work in Currumbin Creek to continue. No other details were provided by the Local Leader to indicate the value of the grant, to whom it was made, and for what specific conservation work.

Project Costs

The project budget for the ASTA Currumbin Creek project was only partially expended due to delays in the project's commencement. Of the funds expended the major item was \$2000 for teacher release.

Was the project successful?

This was Palm-Beach Currumbin State High School's *first venture in the public domain.* (The school) *I found the experience challenging but extremely rewarding.*

The success of this project can be measured in student attitudes in taking on community styled activities. Local Leader

The STA Coordinator and ASTA experienced enormous frustration throughout the project in trying to establish two-way communications with the Local Leader. As a consequence the Currumbin

Creek project deviated from the original intent of the ASTA Science Awareness Raising Model and evolved to an introspective school activity.

Without the provision of a cohort of community contacts for participation in the pre- and post-project evaluation interviews, there is no data available to indicate the success of this project.

What was learnt?

Without the funding granted by ASTA we (Palm-Beach Currumbin State High School) could not have successfully developed a model that allowed teachers the time release required to plan, implement and report on this project. Local Leader

From the experience of coordinating the ASTA Science Awareness Raising Project, the Local Leader recognised the following as factors that could strengthen the Palm-Beach Currumbin State High School Science Awareness Raising Model:

- efficient organisation
- sufficient time to plan and establish the project
- strong community contacts and networks
- structures and incentives that encourage community involvement.

The STA Coordinator identified two-way communication as the crucial factor in project management.

The significance of the Local leader in the establishment of the CRC is critical. STA Coordinator

Community feedback for the Queensland project

Unfortunately, there is little feedback from the community on which to judge the success or otherwise of the Queensland project on Currumbin Creek. The project began late, was very short, and only part of it addressed the original topic of Currumbin Creek. The stated aims of the project

were very general and reflected the aims of the overall ASTA project, and part of the project dealt with some relevant issues. However, no interviewee contacts were received from the school and only four letter surveys were returned, with three having heard of the project. These were analysed and reported in Chapter 8, but provide little information. In addition, 19 copies of a survey carried out by the school were sent to us, showing that 9 respondents had heard of the project, but the other questions referred to demographic data and whether or not the people used the Creek. Overall, no assessment of success can be made based on community feedback.

Summary points

The Currumbin Creek Project report focused primarily on school and student activity. The minimal and protracted contact with the CRC meant crucial elements of the project such as community participation in planning, implementation, reporting and evaluation were marginalised.

Projects are about people working together to achieve common and agreed goals, as outlined in a project plan developed in consultation with key stakeholders. Without effective two-way communication strategies, stakeholder's expertise, networks, opinions and suggestions are excluded, and there is little recognition of their purpose and no reason to participate. Written and verbal communications play a critical role.

The *Package* highlighted the importance of communication throughout the project and provided numerous resources to assist Local Leaders. For example *Promoting Community Awareness of the Project, Choosing the Format of Your Communication, Developing a Strategic Plan, Developing an Action Plan, Reminder to Communicate, Keeping Records, and Activity Log*.

The 'model' and project budget provided scope for the nomination or employment of a Communication Officer. This option was not taken up.

From the small amount of feedback received from

the community it was not possible to determine the success or otherwise of the Queensland ASTA Science Awareness Raising Project.

Appendix 7.3

1. Powerpoint project presentation
2. Project poster
3. Community survey