

PLANNING AND ECONOMIC COMMITTEE**14 OCTOBER 2015****7****HOLLOWAYS BEACH ENVIRONMENTAL CENTRE STUDENT ENRICHMENT PROGRAM - JANUARY TO JUNE 2015 UPDATE**

S Barrett | 1/24/18 | #4889334

RECOMMENDATION:

That Council notes the update on the Holloways Beach Environmental Education Centre's Student Enrichment Program for the period January - June 2015 in accordance with the 2015-2018 Resource and Performance Agreement.

EXECUTIVE SUMMARY:

Council executed a Resource and Performance Agreement (The Agreement) with the Holloways Beach Environmental Education Centre (HBEEC) for the period 2015-2018 providing funding of \$10,000 per annum for the Cairns District Schools Science and Environmental Sustainability Enrichment Program (The Program). In accordance with this Agreement, the HBEEC is required to provide twice yearly reports.

HBEEC's June 2015 report (see Attachment 1) has been provided to Council. This report highlights the progress and outcomes that have been delivered by HBEEC during the reporting period.

The Program for 2015 is well underway and the students have undertaken a number of activities in conjunction with key stakeholders to introduce them to sustainability and environmental science concepts. The project scopes have been established and students are now in the delivery phase. The Projects relate to various key areas with a strong focus on the reef and marine animals, including the effects of water quality, farming and urban run-off on the reef, the impact of littering on the rainforest and marine life, and ecosystem health. Students are delivering their projects through a variety of different media including face to face contact, television, radio, educational videos, books and online.

BACKGROUND:

Holloways Beach Environmental Education Centre (HBEEC) is an Education Queensland facility located at Holloways Beach. Council has had a long established relationship with the HBEEC that commenced in 2004 through support of various environmental education projects aimed at primary school students.

In 2014 the HBEEC introduced a new program to cater for gifted and talented students at primary schools in the Cairns area called the Cairns District Schools Science and Environmental Sustainability Enrichment Program. In late 2014 Council entered into an agreement to contribute funding of \$10,000 per annum towards The Program for a period of 3 years.

The Program is aimed at engaging talented and gifted Year 5 students in applying science to real issues. Students are required to identify, develop and facilitate community sustainability initiatives and develop partnerships with industry experts. The industry experts mentor the students, introduce them to scientific processes and concepts and also assist with field work. Through addressing real life concepts in our community the students develop knowledge, skills and attributes and assume responsibility for creating a sustainable future.

The funding is used to assist with staffing of The Program, providing professional development for key teachers and a range of student and community events.

COMMENT:

The Program has been implemented successfully with students participating in a number of activities and commencing their projects. They have also formed partnerships with organisations, government departments and individuals in the region (See Attachment 1 for full list of stakeholders).

In July 2015 students from Redlynch State College presented their project summaries and requests to Councillors at the Ordinary meeting.

January – June 2015 Highlights

- Three day student conference at Green Island - 1, 2, 9 March
- Students submitted planning proformas and outcomes of research and data to the Facilitator - 16 March
- Visit to launch of Rediscovery Centre at Council - 22 May
- Industry forum at James Cook University - 25 May
- Involvement in Council's ECOfiesta 31 May

Student projects

Details of the student projects can be found in the report attached as Attachment 1.

OPTIONS:

The report is for noting.

CONSIDERATIONS:

Risk Management:

No risks identified.

Financial:

A budget allocation of \$10,000 will be provided in the 2015/16 financial year in accordance with the Resource and Performance Agreement for the HBEEC. The agreement will continue with contributions of \$10,000 per annum until the end of the 2017/18 financial year.

Corporate Plan:

The program relates to the following objectives in the Corporate Plan 2013-18:

- 3.1.3 Encourage community involvement in the development and implementation of natural resource management plans and initiatives.
- 3.1.4 Partner with other levels of government to realise the maximum benefits to the community and environment.

Operational Plan:

The program relates to the following objectives in the Operational Plan 2015-16

- 3.4.2 Support and facilitate a range of community awareness activities and programs that promote the conservation of the regions natural and built environment and which encourage sustainable living.

Policy:

This program relates to the intents of the Corporate Sustainability Policy and the Energy and Emissions Management Policy.

Sustainability:**Resources**

This program promotes awareness around recycling other waste management issues.

Environment

This program supports positive outcomes and increased awareness around issues in the natural environment.

Community

This program supports school programs and sends a positive message to the community.

CONSULTATION:

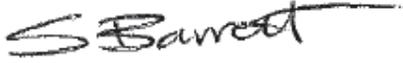
Holloways Beach Environmental Education Centre

ATTACHMENTS:

Attachment 1: HBEEC June 2015 Report

Attachment 2:

- Cairns Post - 17 March 2015 – “Reef Excursion Sustains Interest”
- Cairns Post - 25 May 2015 – “Science Students Set Stage”
<http://www.cairnspost.com.au/lifestyle/cairns-students-to-pitch-industry-leaders-their-environment-ideas/story-fnpqgh7k-1227367805663>
- Cairns Post - 18 August 2015 – “Lily declares war on cigarette butts”
- Cairns Post – 23 May 2015 – “Students get to wise up on waste”
- Cairns Post – 30 July 2015 – “Students switch Cairns on to their bright idea”
- Cairns Post – 23 June 2015 – “Presentations of much fascination”



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Coordinator Strategic Programs



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Manager Strategic Planning and Approvals



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Attachment 1: HBEC JUNE 2015 REPORT



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"Where education comes alive"

Cairns District Schools Science and Sustainability Enrichment Program 2015

Interim Report to Cairns Regional Council

Cairns District Schools Science and Sustainability Enrichment Program cater for Gifted and Talented Year 5 students from state primary schools in the Cairns area.

This program provides opportunities for students across schools to work and learn with like-minded peers through participating in a unique science curriculum that further extends and challenges them. Students are required to identify, develop and facilitate community sustainability initiatives and develop partnerships with industry experts. The industry experts mentor the students, introduce them to scientific processes and concepts and also assist with field work.

2015 Highlights so far:

A) Student Conference (Sunday 1st March- Green Island; Monday 2nd March- HBEEC; Monday 9th March- HBEEC)

A three day Enrichment Conference was conducted at the beginning of the program to provide students with an understanding of the program and the expectations required of students along with the necessary scaffolding to ensure each student is able to successfully undertake the program.

Students investigated the local environment through observation and data collection considering the positive and negative impacts that they observe, leading to their self- identified scientific project.

B) Student Project proformas submitted to Enrichment Program Facilitator (Monday 16th March)

Students completed a scientific planning proforma which is supported by research and data collected in the field.

C) Rediscovery Centre Launch (Friday 22nd May)

Enrichment students from two schools attended the launch of the Rediscovery Centre.

D) Industry Forum (Monday 25th May- James Cook University)

Students presented their sustainability initiatives at the Industry Forum presentations at James Cook University. Industry experts attended the presentation and provided individual feedback to all students. This feedback from a range of sources assisted students to refine their ideas and generate new ideas and possibilities.

Approximately 80 people attended the Industry Forum presentations including Education Queensland representatives, industry experts and parents.

E) Enrichment Workshop (Monday 17th August- HBEEC)

Enrichment students met to further develop their projects through discussions with experts, teachers and peers both in person and on the telephone.

Telephone etiquette, oral presentation skills and data presentation skills were enhanced through sessions at this workshop.

F) Eco-fiesta

Two students assisted Cairns Regional Council and another stallholder at the Eco-fiesta. Several students and their families visited the Eco-fiesta to source resources and information.

G) Partnerships

Resulting from the Student Conference, Industry Forum, Student Workshop and general project work, students have built working partnerships with a range of experts who become their mentors.

Organisations and individuals represented include:

- Cairns Regional Council
- GBRMPA
- James Cook University
- Terrain
- Tangaroa Blue Foundation
- Barron Catchment Care
- FNQ Wildlife Rescue
- Treeforce
- Mulgrave Landcare and Catchment Group
- Fisheries Queensland
- WTMA
- Tolga Bat Rescue and Research
- Cairns and Far North Environment Centre
- Sonya Struber (local author)
- Dr Lesley Clarke
- Dr Martin Cohen
- CSIRO
- Reef and Rainforest Research Centre
- Canegrowers Cairns

H) Cairns Regional Council Meeting (Wednesday 30th July)

Students from Redlynch State College presented their project summaries and requests to a full Council meeting.

I) Student Projects
Cairns District Schools Science and Sustainability Enrichment Program 2015- Project Briefs

Order	Name	School	Project Brief
1	Grace Ashby	Trinity Beach State School	<p><u>When the Forest Meets the Sea</u></p> <p>Grace has researched the impact of litter on the rainforest and has determined that writing a children's book would be an effective strategy to address this issue.</p> <p>Using her research and love of writing, Grace will create a novel targeting 8-12 year olds. She will include elements learnt from a workshop lead by Dianne Lonergan about writing a good children's book. Grace's artist mother will contribute to the book by providing the illustrations.</p>
2	James Turner	Whitfield State School	<p><u>Filth and Destroy</u></p> <p>James has researched the use of litter nets and used information provided by Phil Laycock from GBRMPA to investigate ways to reduce litter in the lower section of the Barron River.</p> <p>He visited the Fearnley Street drain to observe a litter boom net in operation to have a better understanding of these systems.</p> <p>James is designing a mechanical net powered by water movement to address the litter issue in waterways.</p>
3	Madeleine Russell	Redlynch State College	<p><u>Water and Waste Management</u></p> <p>Madeleine has devised an education campaign to address the issue of water pollution. After analysing survey data regarding household recycling and dog faeces disposal, Maddi developed a Household Waste Management program to provide to the general public.</p> <p>As part of her education campaign, Maddi will endeavour to promote her Household Waste Management program through radio and has sought advice from Danora Buschkens from Cairns Regional Council.</p>
4	Malli Lockie	Trinity Beach State School	<p><u>Understanding Attitudes Towards Marine Animals</u></p> <p>Through online surveys, Malli will investigate the attitudes and understanding of people towards marine animals. After analysing the survey data, Malli will determine whether a lack of understanding about the importance of marine animals to our eco-system contributes to marine animals being threatened. It is anticipated that industries will utilize the results for their own research needs.</p>
5	Lily Eggett	Redlynch State College	<p><u>War on Butts!</u></p> <p>After a litter audit of the Lagoon area on the Cairns Esplanade, it became apparent to Lily the high number of cigarette butts found in the litter. She identified cigarette butt hotspots and marked the location of butt bins on a map of the Lagoon area.</p> <p>Lily interviewed the Lagoon staff on the origin of the butts and requested their feedback regarding solutions. Lily came to the conclusion that an awareness campaign highlighting the impact of cigarette butts on the environment using signs in a different language could reduce butt littering.</p>
6	Oliver Medwell	Trinity Beach State School	<p><u>Who Knew Dirt Could Grow Legs and Run-Off</u></p> <p>Oliver has constructed sediment traps in the school grounds demonstrating the usefulness of such techniques to the community in particular, farmers. He has been liaising with Steve Bailey from Terrain to determine the most suitable trap for specific locations. Once it has rained, data will be collected to measure the effectiveness of the traps.</p>
7	Ava Bradley	Whitfield State School	<p><u>Conservation 4 Kids</u></p> <p>Ava aims to help younger children in her school understand sustainability and its importance. Recognizing that being a child herself, she has the necessary vocabulary and phrasing that children like and understand. Ava has decided to create a short video series. With the showing of these videos, Ava anticipates a change in culture at the school where sustainability would become 'cool'.</p>
8	Keira Deed	Freshwater State School	<p><u>Running in the Right Direction</u></p> <p>Keira has identified what best management practices cane farmers are using to reduce sediment run-off from their farms. She has conducted a survey to identify the proportion of canefarmers using BMP as outlined by Smartcane BMP.</p> <p>Keira has liaised with Margaret Barker, the co-ordinator of Barron Catchment Care and has sought assistance from Sandra Henrich from the Canegrowers Association.</p>

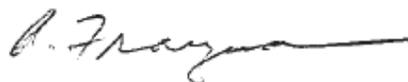
Order	Name	School	Project Brief
9	Jesse Folpp	Redlynch State College	<u>Protecting Our Marine Life</u> Jesse will embark on an education campaign to reduce marine life dying. After analysis of data collected from litter audits and water quality testing from four different locations in the Barron River Catchment, Jesse determined there was a need to focus on the impacts of litter on the environment rather than water quality. He will be liaising with CSIRO scientists and the Cairns Rehabilitation Centre.
10	Oscar Ennis-Thomas	Freshwater State School	<u>Clean Water, Healthy Food Chain</u> Oscar will conduct an awareness campaign highlighting the importance of water quality for a healthy food chain. He has conducted water quality testing in the Barron River in Freshwater, Lake Placid and Kuranda. After analysing his results, Oscar will demonstrate the importance of water quality through a 3 minute educational video.
11	Dany Carline	Trinity Beach State School	<u>Chemical Fertilizer Reduction</u> Dany is currently conducting experiments at home to compare her home made compost to commercial chemical fertilizers. She has researched the ingredients of fertilizers sold and compared space dedicated to both organic and non-organic fertilizers in the gardening section of a local hardware store. Dany attended compost making workshop on International Permaculture Day to research latest techniques used.
12	Kaedyn Lammon	Redlynch State College	<u>Batman</u> Kaedyn has researched the importance of the Spectacled Flying Fox to our environment. He has created a survey to investigate attitudes and knowledge accuracy of the general public. Once the results have been fully analysed he will embark on an education campaign to protect the Spectacled Flying Fox. Kaedyn has liaised with the Tolga Bat Hospital, scientists, and staff from Cairns Regional Council.
13	Harmonie Larsen	Whitfield State School	<u>Root of the Problem</u> Harmonie aims to protect the world's mangroves by using an awareness campaign to demonstrate the importance of mangroves to our eco-systems. She has analysed charts comparing the amount of endangered mangrove plant species to non-endangered species. Harmonie is currently considering education strategies that would have the most impact including television advertising, posters and radio advertising. Harmonie has participated in an offset planting program at Edge Hill with Steve Bailey from Terrain.

Remainder of Semester Two:

The facilitator of the Cairns District Schools Science and Sustainability Enrichment Program 2015 will continue to remain in touch with students through monthly meetings at their school and online.

The Celebration Event will be conducted at James Cook University on November 23rd. Students will present their project outcomes to an audience including their peers and industry experts.

Yours sincerely



Alan Franzmann
Acting Principal