

Environmental Education Strategy (2019-2024)

December 2018



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1. Introduction and Background

1.1 INTERNATIONAL AND NATIONAL CONTEXT

Environmental Education programs across the globe can attribute their development to key moments in history. The first United Nations Conference on the Human Environment in Stockholm, Sweden in 1972 produced a declaration of 26 principles, including Principle 19 that specifically called for the "education in environmental matters, for the younger generation as well as adults" (UNEP 1972). This was endorsed further at the world's first Intergovernmental Conference on Environmental Education held in Tbilisi, Georgia 1977, through the development of The Tbilisi Declaration, which outlined environmental education goals as follows:

- a) to foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- b) to provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and
- c) to create new patterns of behaviour of individuals, groups and society as a whole towards the environment (UNESCO 1978, p.26).

Forty years on, these fundamental goals are still the underlying principles of all environmental education, and will form the basis of principles for this environmental education strategy. Further to this, the placement of local government closer to the people allows this sphere of government to have a key role in educating, raising awareness, and enabling change through the empowerment of the community.

1.2 LOCAL CONTEXT

The City of Kwinana (the City) is geographically located 25 km south of the Perth City Centre, it covers an area of 12,068 hectares and contains a diversity of land use types including heavy industrial, urban residential, special rural, rural, and commercial. It also contains a variety of landforms including dune systems from Kwinana Beach, wetlands including such features as "The Spectacles" and extends out into the Bassendean Dune system east of the Kwinana Freeway containing the Threatened Ecological Community of Banksia Woodland of the Swan Coastal Plain. This diversity in landuse and form, provides for a variety of opportunities to engage with the community on environmental education from special rural residents who can require further assistance with managing their properties in an environmentally sustainable manner, to commercial businesses who may like to become more energy or water efficient.

Over the last 10-15 years the City has grown rapidly from a population of 23,986 in 2006 to an estimated residential population of 41,866 in 2017 (ABS, 2018). The biggest increase in the last 10 years when looking at age structure has occurred in the under five or preschool age group, and the young workforce group of 24-35 year olds. This has particular implications when delivering services, and the types of environmental educational activities to allow for the greatest impact. For example, as the preschool cohort move into school, there would be more opportunities to participate in school holiday based environmental programs. Participation from the 24-35 year old age group in activities may be limited by their reduced availability as a result of full time employment, and child-care commitments. By structuring activities during out of work hours or making the environmental education opportunities child-care friendly, the City will be able to ensure a greater proportion of the population participate.

Other demographic shifts that may be important to note when targeting programs to participants is the increase in the overseas born population. In particular, the largest increase in birthplace countries between 2011 and 2016 were the Philippines, India, New Zealand and South Africa (ABS, 2016). For example resources may need to be provided in in different languages in line with the City's Multicultural Action Plan. Furthermore, the City of Kwinana is in the fortunate position of having a greater than Perth average proportion of the population of Aboriginal people. The incorporation of indigenous culture and language is fundamental and should play an important role in the development of educational materials and programs.

1.3 POLICY CONTEXT

During 2016, the City of Kwinana undertook to carry out a community visioning process which culminated in the development of the Strategic Community Plan 2017-2027 (City of Kwinana, 2017). As part of the Strategic Community Plan, there was one key aspiration endorsed by the community which encapsulated all of the areas to be addressed by the Environmental Education Strategy, which was Aspiration 3 – Surrounded by Nature. Its development has been highlighted in the Corporate Business Plan as Objective 3.2 and Key Action 3.2.1 as follows:

Objective 3.2 Educate and promote improved environmental land management

Key Action 3.2.1 Create an Environmental Education Strategy

The purpose of this Strategy is to collate all current programs undertaken by the City of Kwinana that fall under Aspiration 3 of the Strategic Plan. These programs have direct links to the following strategies, plans and policies:

- Natural Areas Management Plan 6 August 2014
- Climate Change Mitigation and Adaptation Plan 12 September 2018
- Sustainable Water Management Plan 12 September 2018
- Climate Change Policy 23 January 2013

As the Environment Department currently engages regularly with the community at many events, workshops, and in the development of volunteer groups, the City has indirect links with aspects of the following Strategies, Plans and Policies:

- Youth Strategy 14 December 2016
- Multicultural Action Plan 14 December 2016
- Reconciliation Action Plan In Development
- Events Strategy 11 November 2016
- Community Engagement Policy 23 March 2016
- Access and Equity Policy 8 July 2015

This Strategy has had regard to these relevant strategies, plans and policies in determining program relevance, effectiveness and co-ordination. This Strategy also incorporates feedback from the community on the projects and events the community currently participate in, what types of programs they would like to participate in, and other ways to engage with the community. This process has identified gaps within our current Environmental Education program which can be actioned as part of the Implementation Plan.

1.4 WHY AN ENVIRONMENTAL EDUCATION STRATEGY?

"Surrounded by Nature" was a key Aspiration that was developed and acknowledged by the local community in the City of Kwinana Strategic Community Plan. It reinforces how important the local natural environment is for both the health and wellbeing of human beings, but also for all species that live within the natural ecosystem. The negative impacts that human activities have on the environment have been clearly outlined in a variety of documents including the City's Natural Areas Management Plan, Sustainable Water Management Plan and Climate Change Adaptation and Mitigation Plan. As the population of the City grows these impacts will increase. Education will play a very important role in strengthening the communities' ability to maintain a sustainable environment, and improve it into the future. Environmental education is more than just communicating information about the environment and the ways in which it is currently threatened by human activity. It helps individuals and communities to improve their understanding, skills and motivation to work together, to develop solutions and advocate for a healthy environment and society.



2. Environmental Education Methodology

Environmental Education in Australia is currently supported through the Education for Sustainability or EfS Framework. In Western Australia, this takes the shape of the Sustainable Schools initiative linked to the West Australian Education Department (Department of Education, 2016). The initiative provides tools and resources for teachers to incorporate the curriculum priority of sustainability into every learning area, within a school environment. As a local government, a framework is needed that can utilise these principles, but is adaptable to a broad base of learners in both formal and informal settings. In addition, it must be acknowledged that many participants will be at different stages in the Environmental Education Continuum, and that it can cater for different levels of involvement. A Framework for Environmental Education Strategies has been proposed by Monroe et al. (2007) which allows for a very broad target audience, with a variety of engagement opportunities. This Framework will be the basis for categorising the City's current educational programs, and is outlined in Figure 1.

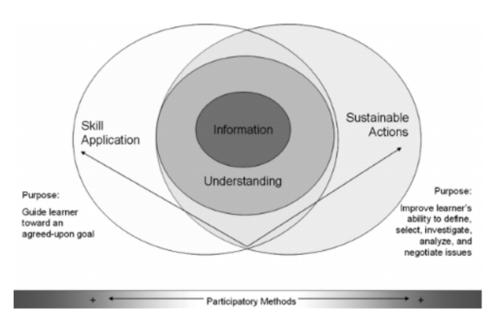


Figure 1 A framework for environmental education strategies (Monroe, Andrews & Biedenweg, 2007, p.211)

Conveying Information: is the basic level, which is the requirement for most understanding. This can occur in both informal and formal settings and is one directional in most cases. There are many examples of this in the local government setting and include the production of information brochures, website/internet information, signage, posters, public announcements, newspaper articles and exhibitions.

Building Understanding: allows for the two-way exchange of information and ideas, to clarify the understanding of information. This could include both informal and formal strategies such as guided nature walks, workshops that allow discussion, experiments, surveys, active learning, field study, and case studies to name a few. For a workshop to build understanding it requires "summative evaluation to better understand how the learners perceive information" (Monroe et al., 2007, p.211). If a workshop only disseminates information and does not provide an opportunity for evaluation or feedback, it would be regarded as "Conveying Information" only.



Improve Skills: in this category of environmental education, the participant practices a skill, and this is a very hands-on approach to learning. It may also include learning strategies that provide incentives to encourage skills and behavior change. This could include activities that involve citizen science, volunteer services such as Community Tree Planting and Community Gardens. The process of setting a pledge and mentoring participants to complete a pledge in programs such as "Living Smart" would be a way of encouraging skills and behavior change. This "Improvement of skills" category still requires a two way dialogue between the educator and the learner.

Enable Sustainable Actions: At this level of environmental education the learner is leading the development of their own goals and projects. The educator is facilitating and supporting the community group or learner in achieving their desired goal. An example of this would be a Friends of group or community member who is setting their own goals, and undertaking to achieve their particular projects with facilitation from the City only. Whilst sustainable actions is the desired goal for a sustainable community, it requires supports to be able to continue on a long term basis

At any given time within the local community, there may be a great deal of overlap between these categories of environmental education, and a number may be required to be utilised in some programs at the same time. A variety of approaches will assist in creating a robust Environmental Education program that can cater for a variety of learners at different stages in their development.

This educational framework will ensure that a diverse range of educational options will be available to the community as part of this Strategy. Prior to the investment in a program, questions will be required to ensure that the program is fit for purpose, and whether it meets the proposed objectives of the Strategy, which are outlined in Section 5. The objectives are based on the elements of the educational framework.

2.1 LIMITATIONS

For any Education Strategy to be effective in the long term, its framework needs to be incorporated across all departments and embedded in all practices conducted by the local government. Within the existing framework, the Strategy will encapsulate biodiversity conservation, climate change mitigation and adaptation, water use efficiency and energy efficiency as key areas of environmental education. Future reviews may provide an opportunity to improve collaborative relationships across other areas of the organisation to create a holistic approach.

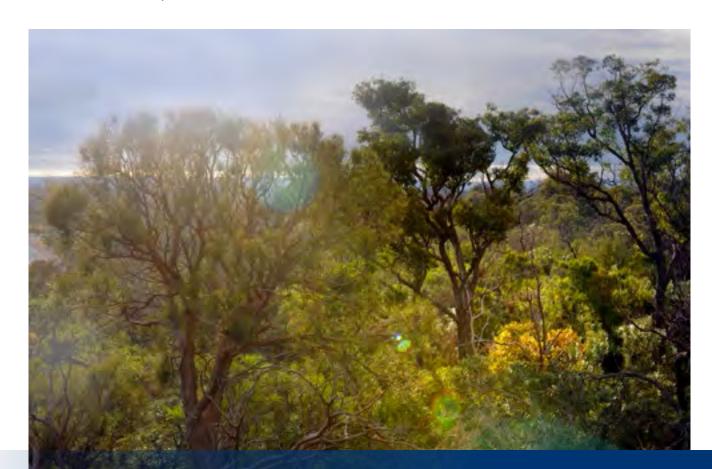
3. Current Initiatives

Currently, the City of Kwinana deliver a variety of Environmental Education programs through a variety of different strategies. Utilising the above Framework, they can be included in the broad categories of conveying information, building understanding, improving skills and enabling sustainable actions. The City currently creates information such as brochures, signs, news articles and exhibitions, undertakes workshops and presentations, encourages the community to improve skills by volunteering and by attending skills building workshops, and supports local community groups to create and sustain their own projects. As described above in Figure 1, all of these areas are required for effective environmental education, and everyone will be at different stages of this process at any one time.

The key is to provide a mix of opportunities for the community to participate in, but to ultimately build the skills to enable the community to lead with their sustainable actions. Attached (Appendix A) is a table that outlines all the activities that the City of Kwinana currently undertake as part of its current Environmental Education program by the City's Environment Department. These programs are run locally, both directly by the City of Kwinana through the Environment Department, and also by utilising community partners such as Living Smart Facilitators, external guides (eg. Guides from the Wildflower Society of Western Australia) and the Switch Your Thinking program. These programs, workshops and guided tours are delivered through existing City of Kwinana venues such community centres, halls, pavilions, conservation reserves.

The Environment Department links in with ongoing City events such as the Children's Festival to provide hands on environmental experiences, to promote activities, inform the public about all things "Environment" at a local level. The City also provides opportunities for staff to experience nature and be involved in sustainable actions (eg. Staff Wildflower Walks and Sustainability Photovoltaic workshops).

As well as formal activities undertaken by the Environment Department, there are a number of informal ways in which the City engages in environmental education. In particular, by providing positive natural experiences through passive recreation, eg. walking in the bush or riding bikes. This could occur in the form of signage or interpretation, and by providing support and advice to active Friends Groups.



4. Community Feedback Summary and Synthesis of Objectives

A Community Survey was created and sent out through Facebook, and email networks to gauge how much the community value the existing environmental education program, and what types of activities and programs the community would like to be involved in. A copy of the survey is attached in Appendix B. The City received 75 individual responses.

A summary of the community feedback is provided as follows: Most of the respondents reside within the urban areas of Kwinana, there were no responses from residents in Anketell or Mandogalup, and only one from any of the semi-rural residential area of Wandi. The highest number of responses came from Wellard at 22.97% of responses, followed by Medina at 16.22%.

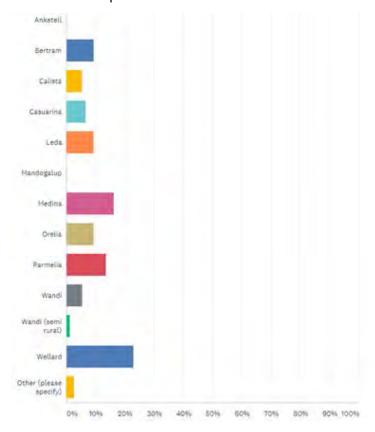


Figure 2 Percentage of Respondents by Suburb in Kwinana

Over 72.6% of respondents had participated in an environmental activity conducted by the City of Kwinana. The most likely reasons for respondents to not participate included the lack of time, family and work commitments, and only recently moved into the area. Other reasons included that they did not know about them, did not have transport, and some had no reason for not participating.



4.1 CURRENT INITIATIVES THE COMMUNITY ARE LIKELY TO PARTICIPATE

Of all the fifteen activities provided by the City, respondents participated mostly in Community Planting Events (61.11%), followed by the Seedling Subsidy Scheme (46.3%), Clean Up Australia Day (40.74%) and the Annual Wildflower Walk (27.78%). The events that had the least participation by respondents included Switch your Thinking activities (5.56%), Nightstalks* (5.56%) and Adopt a Spot Program*(0). A number of respondents (20) did not answer this question.

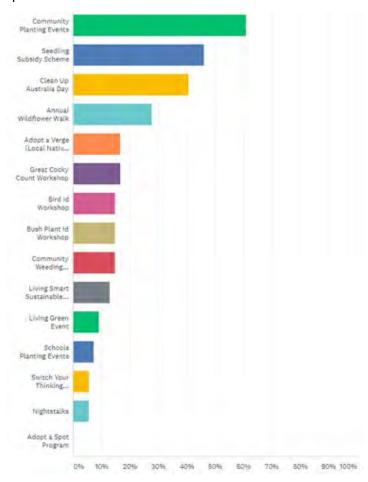


Figure 3 Activities which respondents have participated in

Respondents were asked how likely they would be to participate in the 15 activities that the City currently offers. The highest weighted average of likelihood at 4.25 was for the Seedling Subsidy Scheme, followed by Community Planting events at 4.05, the Annual Wildflower Walk at 3.89, and Verge Gardening Workshop at 3.84. Those activities less likely to be participated in by respondents included Switch Your Thinking at 3.4 and School Planting Events at 3.06.

Switch Your Thinking is a local government initiative that inspires sustainable action in Perth. It facilitates community events, delivers iconic projects and negotiates discounts for residents on sustainable products. Nightstalks are locally run guided wildlife spotting activities run during spring/autumn at night in various conservation reserves, organised by the City. Adopt a Spot is a program run through Keep Australia Beautiful WA. It is an anti-litter program that enagages volunteers (individuals, community groups, business groups) to undertake coordinated litter clean-ups of designated sites in their communities.

4.2 CURRENT ACTIVITIES LIKELY TO CHANGE BEHAVIOUR:

In addition to getting a snapshot of current levels of participation, the City was also seeking to determine which activities provided the community with an opportunity to take these skills on board and make changes in their own lives, as part of the next stage in Environmental Education of Building Understanding and Improving Skills. Community Planting Events had the highest response at 53.19% followed by Seedling Subsidy Scheme at 42.55%, Clean Up Australia Day at 29.79%, and Adopt a Verge (Local Native Verge Gardening) at 23.40%. In particular, the Community Planting and Seedling Subsidy Scheme activities have been in operation for the last 5-10 years and so have built an interest in participation from the community. It is likely that over time the community will make connections with other activities that have only recently been running eg. "Switch your Thinking". There is also opportunity to adapt these activities according to the community needs and wants.

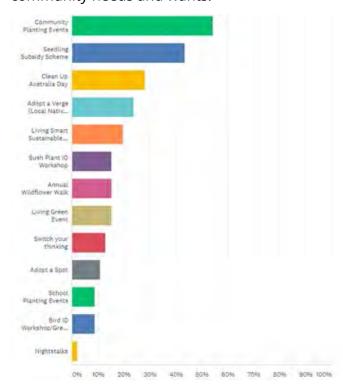
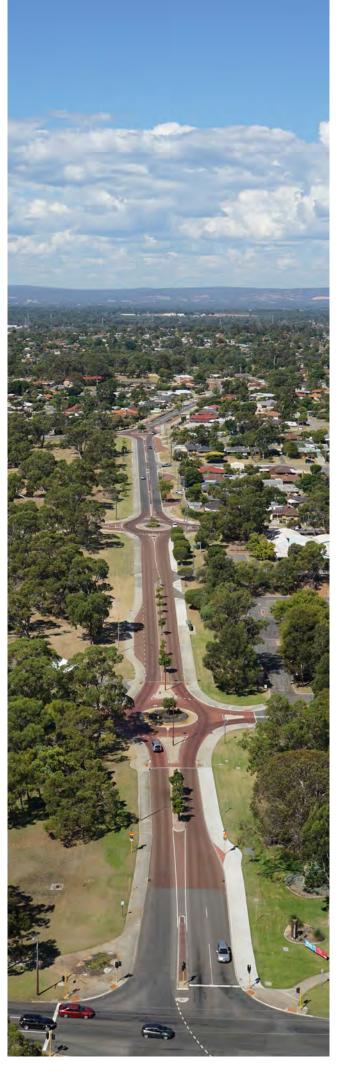


Figure 4 Activities which have prompted respondents to make changes in their lives



4.3 OTHER ACTIVITIES REQUESTED BY THE COMMUNITY

The community were also asked if they wanted to see any other activities included in the City's Environmental Education Strategy that were not already being undertaken. The City provided some suggestions, but also allowed individuals to contribute their own ideas for consideration. Of the suggestions that the City made, the respondents listed the following as the most likely programs they would participate in:

- bushwalks with interpretative signage (30% very likely),
- solar panel advice (22.03% very likely),
- community gardens (20.69% very likely)
- nature play activities (20.37% very likely)

The least likely activities to participate in were Nature Based School Holiday activities (18.87% very unlikely) and Nature Play Activities (11.1% very unlikely). This clearly indicates more of a demographic bias, as some people with children are obviously very interested in nature play activities and those without children are not. Other suggestions put forward by the community in order of interest included; productive gardening advice (including permaculture gardening and establishing a community garden at Noongar Hill behind Pace Road shops), preserving trees and bush forever sites, native garden design and plant selection advice, installing interpretative signage in reserves (eg. Wildflower), youth and kids hands on activities, and native wildlife information and rescue. Other individual comments included; saving water, sustainable pet ownership, preventing trail bikes from getting into reserves, littering awareness and water based activities.

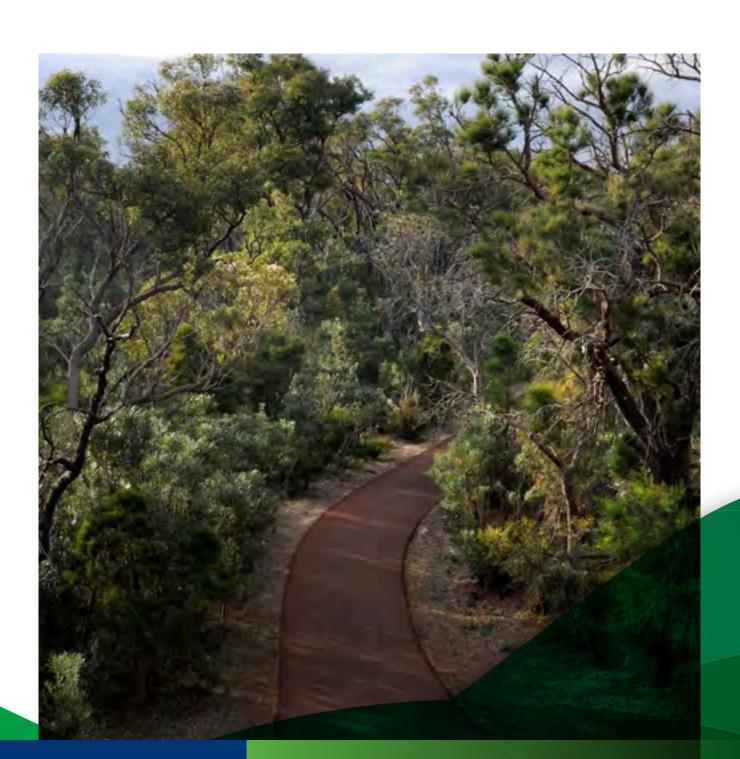
Finally, when asked if respondents had any other comments or ideas, there were 19 comments provided. This included the following; undertake school visits, motivate people to attend activities, planting gardens with fire prevention in mind, weeding activities, promote more planting of Tuarts, how to plant a waterwise verge garden, composting and worm farms, native tree planting in parks and street verges, and bird id walks.

Based on the feedback obtained from the community survey, the City is largely providing the experiences and activities expected by its community in the area of Environmental Education. Given the likelihood of participation in nature play activities outlined above, and the recent demographic changes in the City, there is a need to provide opportunities for the many more young families that are moving into the area, and to provide support for these time poor families to engage in our existing programs and activities. There will always be opportunities to improve services and provide new activities, based on interest and need, and this will be achieved by undertaking regular evaluation of our existing programs.

5. Key Objectives of the Environmental Education Strategy

In order to synthesise the educational framework of the Strategy with the initiatives that the City already conduct, and the feedback of the community; a few key objectives have been established as follows:

- 1. **Raise Awareness** about the environment and particularly in those growing demographic groups in Kwinana (including celebrate success eg. awards);
- 2. **Build Skills in the Community** with new and existing residents and groups, so they can ultimately facilitate their own actions.
- 3. **Look for New Opportunities** to incorporate all target audiences, and to collaborate with multiple stakeholders.



6. Implementation Plan

Below is a list of actions that will be undertaken as part of the Environmental Education Strategy. These actions have been listed to respond to current levels of interest expressed by the community, and in line with City strategies, programs and initiatives for each objective. These actions may change over time according to public interest, specialist interest projects that are considered priorities (eg. seasonal issues such as swooping magpies, increases in feral animal numbers) and opportunities to link in with funding. Each Action is identified as new or existing to identify actions that are already being conducted as part of the existing Environmental Education Program. It is assumed that the budget totals will be made up of associated costs including operational costs (eg. Costs of buying plants for plantings, gloves, maintenance, watering) catering, advertising, hire of venues, as well as interpretative services provided externally. The budget for advertising is outlined in more detail as part of Appendix C.



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No.	Description of Action	Responsibility	Timeframe	Budget and source (Base year 2018/2019)	Measure of success (Outcome)
OBJE	CTIVE 1 RAISE AWARENESS				
1	*Existing* Organise Annual Wildflower Walk – promoting awareness of biodiversity in Kwinana, providing positive natural experiences. Utilising a collaborative approach with art and culture.	Natural Environment/ Community Engagement	Annually	\$1500 City	40-50 participants.
2	*Existing* Organise Living Green Event – Providing advice to residents on ways to "Live Green" reducing waste, native plant advice, solar power, and incorporation of Seedling Subsidy Scheme.	Natural Environment/ Sustainability/ Environment Health	Annually	\$2000 City	80-200 participants, and Evaluation through survey with a 70% satisfaction rate by participants
3	*Existing* Continue to provide information based workshops for Kwinana Residents (Adopt a Verge)	Natural Environment/ Sustainability	Annually	\$200 City	20-40 participants, and Evaluation through survey with a 70% satisfaction rate by participants and Number of Native Verges installed
4	*Existing* Continue to participate in Switch your Thinking Program, 5 workshops including Young Reinventor Competition.	Sustainability	Yearly (5)	\$5000 City	Evaluation by Provider - Switch Your Thinking
5	*Existing* Conduct Nightstalks – promote awareness of biodiversity in Kwinana to provide positive experiences in the natural environment.	Natural Environment	Yearly (2)	\$900 City	70% of expected participation.
6	*Existing* Continue to participate in and promote the environment in cross departmental projects and events eg. Childrens Festival,	Natural Environment/ Sustainability/ Community Engagement	As required	\$1000 City	Feedback through evaluation of relevant event.
7	*New* Review information provided about the Environment on City's electronic platforms and update. Update existing information brochures. Establish a yearly events calendar/program.	Environment/ Marketing- Communications	Ongoing	\$500 City	Number of hits/downloads online.
8	*New* Provide Solar Panel, Energy Efficiency and Water Efficiency Advice to residents at Callistemon Court and Banksia Park Retirement residents	Sustainability	2020	TBA	Participation, CO2 abated, cost saving,
9	*New* Investigate options for interpretative signage in key bushwalk areas	Natural Environment/ Other	2019-2020	ТВА	NA

No.	Description of Action	Responsibility	Timeframe	Budget and source (Base year 2018/2019)	Measure of success (Outcome)
OBJEC	TIVE 2 BUILD SKILLS IN THE COMMUNITY				
10	*Existing*Continue to host Planting Events in local areas, based on community interest and revegetation priorities. This including National Tree Planting Day.	Natural Environment	Seasonal (May-August) 6 Events	\$15,000 City	Number of Seedlings Planted, and Evaluation through survey with a 70% satisfaction rate by participants
11	Existing* Continue to organise Seedling Subsidy Scheme as part of the Living Green Event	Natural Environment	Annually	\$4000 City	Seedlings sold
12	*Existing* Continue to facilitate Clean Up Australia Day in the City of Kwinana, to promote awareness about littering.	Natural Environment/ Sustainability	Annually	\$500 City	Increased number of participants
13	*Existing* Continue providing skills based workshops for Kwinana Residents: (Plant ID, Bush Birds, Great Cocky Count, Seed Collection)	Natural Environment	Yearly (3-4)	\$2000 City	Evaluation through survey with a 70% satisfaction rate by participants
14	Existing* Continue to deliver the Living Smart Sustainable Living Course	Sustainability	Annually	\$7000 City	Evaluation through survey with a 70% satisfaction rate by participants
15	Existing*Continue to provide opportunities for Schools to be involved in Planting Events in their local areas. This includes National Tree Schools Planting Day.	Natural Environment	Yearly (4-6)	\$7500 City	Number of schools and students participating
16	Existing* Continue Switch Your Thinking Program – Rewards for Residents and Businesses and Switched on Schools and Businesses	Sustainability	Ongoing	(This is same as item4) \$5000 City	Evaluation by provider - Switched on Thinking
17	*New* Trial a Skills based Training Workshop for existing Friends/Community groups with focus on looking after larger landholdings.	Natural Environment	2020	ТВА	Evaluation through survey with a 70% satisfaction rate by participants
	OBJECTIVE 3 LOOK FOR NEW OPPORTUNITIES				
18	Existing* Continue providing support to existing community volunteer groups, scout groups, youth groups, schools and those emerging to undertake a variety of activities, particularly Regeneration activities "Community Weeding"	Natural Environment/ Sustainability/ Community	Adhoc Seasonally	Bushcare Materials	Number of new groups established
19	*New* Investigate ways for Friends group/Community groups to share information, resources and skills to support each other.	Natural Environment/ Sustainability/ Community	2021	ТВА	N/A

No.	Description of Action	Responsibility	Timeframe	Budget and source (Base year 2018/2019)	Measure of success (Outcome)
20	*New*.Continue to investigate ways to forge links with schools through the curriculum as an addition to the schools planting program.	Natural Environment	2021	TBA	Number of schools involved
21	*Existing* Utilise the Environment cross functional team to implement environmental education and sustainability principles across the whole organisation	Natural Environment/ Sustainability	Ongoing	NIL	N/An
22	New*Investigate options to incorporate Nature Play into existing frameworks – New Beginnings, Creche, Vacation Care, Library and Community Centre Programs or to establish a new bush based program.	Natural Environment/ Community Centres/ Family Day Care/	2022	ТВА	N/A
23	*New* Work with Community Services to establish a suitable model and guidelines for the development of community gardens in the City.	Natural Environment/ Sustainability/ Community Engagement	2022	NIL	Approved Guidelines

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