



Darwin Initiative Main Project Annual Report

To be completed with reference to the “Writing a Darwin Report” guidance: (<http://www.darwininitiative.org.uk/resources-for-projects/reporting-forms>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Submission Deadline: 30th April 2018

Darwin Project Information

Project reference	DPLUS047
Project title	Reduce, reuse, recycle – developing a waste management strategy for Ascension
Host country/ies	Ascension Island
Contract holder institution	Ascension Island Government (AIG)
Partner institution(s)	Waste and Resource Action Programme (WRAP)
Darwin grant value	£99,993
Start/end dates of project	01/04/2016 to 25/10/2018
Reporting period (e.g., Apr 2017 – Mar 2018) and number (e.g., Annual Report 1, 2, 3)	Apr 2017 to Mar 2018 AR2
Project Leader name	Mike Haworth
Project website/blog/Twitter	Not to date
Report author(s) and date	Mike Haworth 30 th April 2018

1. Project rationale

The project is to develop a waste management strategy for Ascension and implement that strategy. The island currently has no waste management strategy or policy in place and this is having a detrimental effect on the environments present. There is little or no segregation of waste into recyclable materials and no containment of waste that is deposited. The majority of the waste arising on Ascension is disposed to ground and / or mass burnt at a tip in a location called One Boat. See the location of Ascension Island in Figure 1 below.

Figure 1 Ascension Island Location



The lack of strategy or amenities to manage the waste results in emissions that pollutes the terrestrial environments and likely pollutes the marine environments. The mass burning of waste results in a smoke cloud that travels in excess of kilometre downwind and is likely producing harmful combustion by-products that contaminate the surrounding environs. The soot stain on the landscape from the waste burning is visible from space.

The proposed strategy will be based around the principles of “reduce, reuse and recycle” for the management of waste generated. It will seek to reduce the risk to the environment to recognised acceptable levels through reduction in the waste arising, reuse of the materials where this is appropriate and recycling of the remaining fraction by correct treatment of the waste materials.

The implementation of the waste management strategy will reduce pollution of the island environments and will ensure long term sustainable treatment of the recyclable and waste materials.

2. Project partnerships

Formal Partnerships

The project has one formal partnership with the UK based Waste and Resource Action Programme (WRAP). WRAP was established in 2000 with funding from UK Government, the devolved administrations and the European Union. It works with businesses, individuals and communities by helping them reduce waste, develop sustainable products and use resources in an efficient way. Since 2004, WRAP has developed the "Recycle Now", "Love Food, Hate Waste" and "Love your Clothes" initiatives and has secured voluntary agreements with businesses for the reducing waste. WRAP is currently a registered charity in the UK.

WRAP were appointed to the project in December 2016 under an Institute of Civil Engineers (ICE) professional services form of contract. They were appointed to provide services for the delivery of the Darwin DPLUS047 project activities. This is summarised in Table 1 below:

Table 1 WRAP Scope of Services and DPLUS047 Activities

WRAP Services	DPLUS047 Project Activities
1) Waste Compositional Analysis (“Waste Wheel”) <ul style="list-style-type: none"> a. Review of AIG waste sorting method statement for Waste Wheel analysis 	1.3, 4.1

2) Waste Treatment Techniques Review (WTTR) a. Preparation of WTTR Report based on outputs to Waste Wheel analysis	1.3, 3.1, 3.2, 3.4, 3.4, 3.5
3) South Atlantic Overseas Territories (SAOT) Workshop a. Prepare workshop agenda and materials b. Lead the SAOT workshop c. Prepare minutes and document actions from the workshop	1.3, 2.1, 2.2, 2.4
4) Feasibility Report a. Prepare a report based on the WTTR and SAOT workshop to provide recommendations for a waste treatment strategy for Ascension	1.3, 3.1, 3.2, 3.4, 3.4, 3.5
5) Presentation at Public Meeting a. Preparation of presentation materials for a public meeting held on Ascension b. Presentation at the above public meeting to provide information on the waste management strategy, the benefits and how it can be achieved	4.6
6) Communication and Education Programme a. Assistance and review in the preparation of the project communications plan b. Provision of a licence for "Recycle Now" c. Assistance in the development of posters, signage etc for the project d. Attendance at public meetings held on Ascension	1.3, 4.2, 4.3, 4.4, 4.5, 4.6

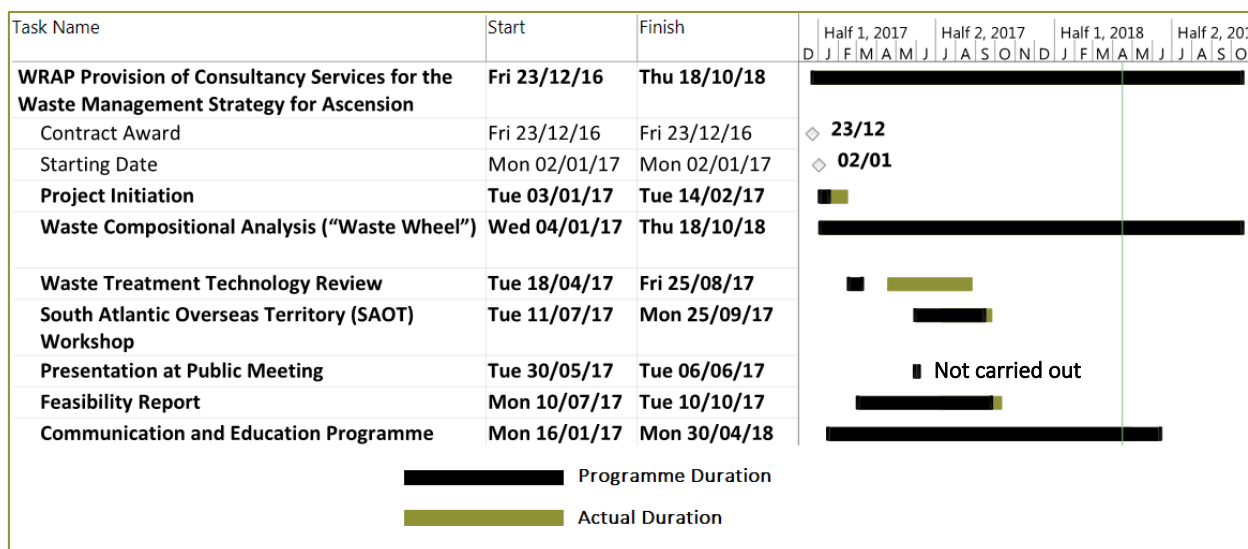
Whilst there have been changes in the timings of delivery for individual items due to developments on Ascension and in the overall project, WRAP has provided their services in accordance with an approved project programme. See the baseline programme and actual programme to date in Figure 2.

There are differences between approved project programme and the actual durations is the task for the Waste Treatment Technology Review report. This delay was due:

- Suspension of availability of air freight provided by the Ministry of Defence during the last quarter of 2016/17 which delayed the arrival for personal protective equipment required for the waste wheel assessments.
- Greater than anticipated duration for the preparation of the report by WRAP. WRAP worked with the project leader to ensure the changes in delivery timescales did not adversely impact the overall programme and in particular the SAOT workshop and the Feasibility Report.

The presentation at the Public Meeting was not carried out as flights to Ascension had ceased in April 2017 due to runway damage. The Project Leader has now secured the services of a communications officer from St Helena (without cost to the project) who will carry out this activity in July 2018.

Figure 2 WRAP Project Programme



Informal Project Partnerships

The vast majority of the island’s population is employed by five organisations; the major employing organisations (EOs). In addition to conducting their activities, these organisations also contribute to some running of the island services and infrastructure. Also the four organisations listed below provide financial support to AIG in the form of an annual levy.

- Ministry of Defence (MOD) – who use Ascension as a refuelling and logistical “airbridge” to support the Falkland Islands
- BBC – who maintain a relay antenna to broadcast the world service to Africa (their resident contractor in Ascension is Babcock International)
- Sure South Atlantic (SA) – a telecommunications company who provide local and international communications services from Ascension
- Composite Signals Organisation (CSO)

The fifth organisation is the United States Air Force (USAF) who conducts tracking of low earth orbit objects, principally rockets and missiles from the mainland United States. They work within an area leased from the UK government and whilst they are effectively autonomous and self-sufficient, they expressed an interest in the project and its outcomes for purposes of mutual benefit. However, they have elected not to take part in any centralised waste management solution and they will continue to manage their own waste management activities.

As the majority of the waste generated on the island comes from the direct undertakings of the organisations or through the domestic activities of their personnel, AIG expects them to provide financially to the implementation of this project.

Given their directly employed workforce and the requirement to contribute financially to the new waste management strategy, it is important to ensure they are engaged with the project. On this basis, numerous meetings were held with these parties in 2016/17. This was continued in 2017/18 with the formation of a Waste Management Steering Group. The terms of reference for this steering group are attached at Annex 4.1 and progress made is described in section 3 below.

3. Project progress

3.1 Progress in carrying out project Activities

The progress this year has focused on information gathering leading to informed outputs on the most feasible waste treatment strategies for Ascension. This has been coupled with

stakeholder engagement and procurement exercises for a waste incinerator. The full complement of activities undertaken is shown below in approximate date order:

- Waste sorting activities leading to Waste Wheel report
- Waste Treatment Technology Review report prepared by WRAP
- Commencement of separate glass collections
- Improvements made to the security and handling of waste streams at One Boat waste site
- Steering Group for Waste Management established with Stakeholders
- Islander Articles published
- South Atlantic Overseas Territory (SAOT) workshop held
- Hazardous materials storage site setup with protocols and training provided
- Feasibility report published
- Oils waste (approximately 15 tonnes) materials removed from Ascension
- Car crusher feasibility and condition report published
- Permit format agreed for new landfill to be operated by US Airforce
- Waste Materials Balance
- Small forums held with the public
- Incinerator procurement completed
- Communications Plan completed

The specific activities for the project programme to which the above relate are described below.

Output 1 – Develop and implement a strategic framework for waste management on Ascension Island

Activity 1.2 – Draft waste management plan produced, Protocols for waste management equipment

The production of the waste management plan is based on a number of lead in items, these in order are:

- a) *Waste wheel information*
- b) *Feasibility report and waste materials balance*
- c) *Protocols for waste management equipment*
- d) *Stakeholder engagement and buy-in to the proposed framework*

Progress for each of the above is described below:

a) Waste Wheel information

The sorting of waste materials into component waste streams was completed from March 2017 to August 2017. This work allowed the preparation of the waste wheel report (attached at Annex 4.2) on which the WRAP report entitled, Waste Treatment Technology Review was based and this is attached at Annex 4.3.

This work provided estimates on the quantity, composition and available technologies for treatment on which the framework will be based. This is described in further detail as part of Output 4.

b) Feasibility report and waste materials balance

The waste treatment technology review and continued additions to the waste wheel information led to the preparation of the Feasibility Report and associated materials balance for the estimates of waste and recycling materials flows. The feasibility report is described in further detail at Activity 3.5 below.

The materials balance provides information on the required annual throughput for the waste management infrastructure and operations. This information is required for the “right-sizing” of capital infrastructure and understanding of operational budgets. The materials balance and summary graphs are shown at Annex 4.4.

The publishing of the Feasibility report in October 2017 was on schedule.

e) *Protocols for waste management equipment*

The proposed waste treatment equipment is based on that stated in the Feasibility report and with respect to existing infrastructure which can be put to use in the strategy. For the reporting timeframe, the following progress in preparation of the protocols has been achieved:

- **Hazardous Materials (Hazmat) Storage facility**
The government did not have a repository for the storage of hazardous waste materials, prior to this project materials were stored locally to varying standards. From June to Sept 2017, a suitable building and compound was repurposed for this use.

It was fitted with appropriate locks, signage and bunded storage bays. Protocols for restricted access were drafted and training provided to the waste management staff in these. See Annex 4.5 for photos of the facility and where the protocol is attached.

- **Car Baler**
Prior to the commencement of this project, AIG procured a car baler for crushing scrap metal and end of life vehicles. Due to a lack of available power source, the car baler was never installed. As part of this project the feasibility of the use of the car baler was investigated and a condition survey carried out on the equipment.

The feasibility assessment indicates a viable proposition and the baler will be commissioned with training and support from the Italian manufacturer in July. The protocols for operation will be prepared in conjunction with the training and commissioning.

- **Waste Incinerator**
The Feasibility report indicated that a key component of the waste management strategy is the construction and operation of a waste incinerator for household and clinical wastes. The contract to provide the incinerator was awarded in March 2018. Within that contract, the supplier has to provide the operation and maintenance manuals and training for the personnel of the incinerator. This will be provided in September 2018, following installation of the incinerator. This training and the manuals will form the basis of the operating protocols.

Overall the above protocols will be included within a complete set of overarching waste management protocols which will form a handbook for the operational team to adhere to and refer to.

c) *Stakeholder engagement and buy-in to the proposed framework*

Since the beginning of the project, work has been carried out to identify the key stakeholders and their potential contribution to the project. The key stakeholders identified are as follows:

- i) Major Employing Organisations
- ii) Island Council
- iii) Members of the Public

The main stakeholder strategy is to initially focus on the engagement of the EOs as they are the main financial contributors and have a large population through their workforce.

The engagement of the Island Council and the public is to follow once the project objectives is agreed with the EOs. The engagement activities carried out are described below:

i) Major Employing Organisations

Following on from the agreement of the principles of the project in a meeting held in March 2017, a Waste Management Steering Group was set up comprising AIG and the EOs. The purpose of the steering group is to be an information sharing and decision making forum relating to project matters. The steering group meetings are scheduled to take place at key points in the project timeline. The first 2 meetings held were as follows:

- July 2017 Meeting 1 – presentation of the waste treatment technology review for comment and acceptance of the findings
- Oct 2017 Meeting 2 – presentation of the feasibility report for comment and acceptance of the findings

The minutes of the above meetings are presented in Annex 4.6. The acceptance of the report findings was received at both meetings; however, commitment to implement the findings was not agreed in Meeting 2 pending further information on financial costs.

Based on the assumptions in the project, agreement from the EOs was required prior to the preparation of the draft waste management strategy to start. The requirement for more information to be provided to the EOs did not accord with the project programme. Therefore the programme was amended with project tasks rescheduled – this is described in section 3.2. The provision of information and preparation of the draft waste management strategy will now take place from April 2018.

Further steering group meetings are planned over the next 6 months to coincide drafts of the waste management strategy.

ii) Island Council

The Island Council has been updated throughout the project and a report was presented to an Island Council meeting in September 2017. This report is attached at Annex 4.7.

iii) Members of the Public

For the wider public, this communication was in the form of articles published in the island's newspaper; "The Islander". The Islander is sold weekly in all shops and is the main source of information for the population about news and events on Ascension. In the reporting period five articles have been published and these are presented at Annex 4.8.

In addition, notices and guidance for the separate collections of glass bottles and jars was published in the Islander and displayed in local clubs, shops and public notice boards. See the glass guidance in Annex 4.9 and Figure 2 below.

Figure 3 Separate bottle bins with Guidance Notice above at Two Boats Club



In January and February, a series of forums were held with members of the public selected on the basis of their position as long term Ascension knowledge holders and influencers in the community.

The purpose of these forums was to understand the impact of the project and its progress to date and to provide direction to the preparation of the Communications Plan. Three forums were conducted each with two members of the public and a representative from WRAP. The results were anonymised and a summary of these forums is provided at Annex 4.10.

Activity 1.3 – Liaison with technical experts, feedback on draft framework incorporated

The project partnership with WRAP is well developed at this point and the majority of their brief has been delivered to this year end in accordance with the project programme. From Table 1, WRAP activities 1 – 4 and 6 are fully complete. Their outputs have been reports for these activities and these are attached in Annexes 4.3, 4.14 and 4.15.

Output 2 – Training and capacity building both on island, with other OT's and with technical experts in the UK

Activity 2.1 – Agree scope and content for training workshop, develop materials, complete logistical arrangements and invitations

The scope and content for the training and collaboration workshops was agreed with WRAP, the prospective attendees from the waste teams on St Helena and the Falkland Islands and the Ascension stakeholders; UK Ministry of Defence and US Airforce.

The purpose of the workshops was to share information on waste management practice at each location and to investigate options for sharing of waste management methods / skills across the islands. This information was to be included in the Feasibility report if relevant. The agenda and delegate list for the workshop is attached at Annex 4.11.

Due to the cessation of the flights to Ascension in April 2017, attendance in person on Ascension was not possible and the workshop had to be held as a web conference.

Activity 2.2 – Attendance of Ascension waste team, on island stakeholders, UK technical experts and 2 other SAOTs at 3-5 day waste workshop and;

Activity 2.3 – Training of on island staff in waste management techniques and collaboration with other OT's, including information and expertise sharing

Due to the remote format of the workshop, visits to the island waste facilities could not be carried out and the duration of the workshop was reduced to 2 days. The workshop was chaired by WRAP and held via the web and used a presentation format as its main structure. The presentations from each day are attached at Annex 4.12.

All invited attendees took part and a summary of the main items undertaken were as follows:

- Confirmation of the purpose of the Workshop
- Summary of the current waste practice employed on Ascension, St Helena and the Falklands information provided by delegates from each location
- Review of the inter and intra island logistics options and identify any island synergies for waste treatment and management
- Undertook an optioneering exercise (using given criteria and the waste hierarchy) to review options for recycling of food waste, glass, metal cans and final treatment of residual waste streams
- Food waste reductions – benefits and practices
- Communications strategies and methods

The workshop provided a good forum for meeting with the representatives of the island and provided knowledge and ideas on the practices employed. In the review of the options, the difficulties of the inter-island logistics (mainly of distance and cost) meant that opportunities for sharing the waste management activities across the island were limited.

The positives from the workshop were that knowledge on available technologies, waste reduction strategies and communication methods were shared through WRAP across the SAOTs. For Ascension in particular, the discussions allowed for some proposed waste treatment options to be discounted and for focus to be put on those more viable means of treatment.

Activity 2.4 – Post Workshop review, feedback and follow up actions

The records of the workshop were shared across the delegates and actions assigned. A follow up web conference was held in September and the actions from the Workshop were discussed. The list of the actions and the resultant outputs are shown in Annex 4.13.

Output 3 - Reuse and Recycling - conduct a feasibility report and action plan for post processing

Activities 3.1 – 3.5 Feasibility Report and Action Plan for Post Processing

The aims of the Feasibility report were to provide the most feasible means of treatment of the waste materials arising on Ascension. The feasibility report used the waste wheel data, the outputs from the SAOT workshop, local island information plus advice from UK suppliers and experts to propose a series of options for treatment. The feasibility of the particular options was chosen on the basis of the suitability for Ascension waste composition and quantity, simplicity of process and best value whole life cost.

The report is attached at Annex 4.14 and the summary of the report findings is as follows:

- **Food waste** is identified as the most significant single waste stream by weight and the report recommends two separate interventions:
 - Hospitality sector: AIG to develop an action plan to monitor and reduce food waste from mess facilities.
 - Consumer food waste prevention: Campaign to reduce food waste.
- **Recyclable materials** are a significant percentage of the island's waste. Barriers to recycling include limited access to local or international markets for these materials. The

costs of addressing these barriers were, in many cases, prohibitive. The positive options that can be implemented are:

- **Glass.** A trial 'bring' recycling scheme for glass bottles and jars. In addition, the report recommends investment in a glass imploder and screening system. The glass fragments could then be used as a replacement for virgin aggregates.
- **Metals.** A new 'bring' recycling scheme for mixed steel and aluminium cans is recommended for introduction alongside the existing glass collection trial. There are potential markets for separated and baled steel and aluminium cans in the UK or South Africa.
- This report does not recommend immediate implementation of food waste recycling collections and food waste treatment infrastructure.
- For recovery and disposal of the **residual waste fractions**, the report recommends:
 - **Incineration.** This report recommends the installation of a small-scale incinerator capable accepting all non-recyclable wastes and materials which cannot be economically separated for recycling. The system should include automated ash removal and a waste oil injection system. It is not considered economically viable to include energy recovery technology.
 - **Un-engineered landfill** is recommended as a repository for inert incinerator bottom ash (IBA).
- **Waste oils** can be a difficult material stream to recycle; a disposal route could be through waste oil injection into the incinerator.
- **Hazardous Wastes:** Existing management arrangements should continue, as there are no options for treating hazardous waste on the island. EOs should explore opportunities for joint shipments to potentially reduce costs. The removal of legacy stockpiled waste (hazardous or otherwise) from the island is considered a priority.

The feasibility report was provided to the stakeholding EOs for comment and review. The findings of the report were presented at Meeting 2 of the Steering Group. The timescales for the production of the feasibility report were in accordance with the project programme.

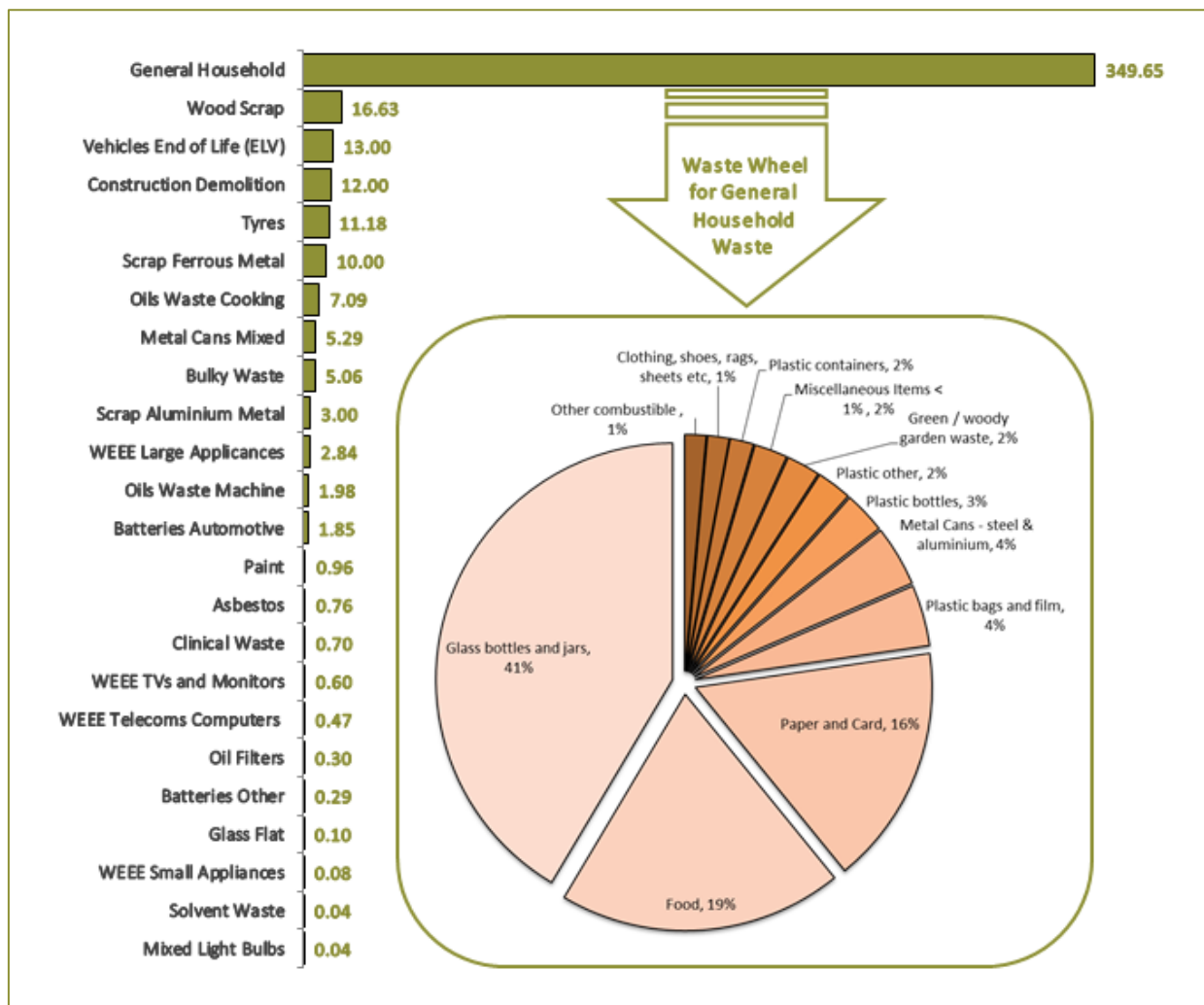
Output 4 - Waste Segregation / Recycling and Reduction - Education of the Public

Activity 4.1 – Establish waste wheel to determine baseline for current waste disposal (at start of project) and continue throughout the life of the project to determine if successful reduction in main waste of recyclable items. Report of waste wheel data produced

As presented in last years end of year report, activities were carried out to sort samples of waste taken from island collection rounds in total from March 2017 to August 2017 over 5 tonnes of materials were sampled and sorted.

For other items of waste that are not part of the collection rounds, a combination of observed quantity change over time and order of magnitude estimates were used. Figure 4 shows the resultant estimate annual waste quantities and the general household "Waste Wheel" derived from the samples.

Figure 4 – Waste Composition for Ascension (all collections / amounts in tonnes per annum)



Activity 4.2 Develop and agree action plan for communications

Following the production Waste Wheel data and the feasibility report, the communications plan could be developed. The communications plan was prepared by WRAP in conjunction with the Project Leader. The plan takes the stated aims of the Feasibility report and the waste wheel information and draws upon population and demographic information to propose a communication strategy with underlying actions.

The communications plan is attached at Annex 4.15 and the outline aims, methods and follow up actions are presented below.

1) Aims

- a. To ensure that all residents are aware of:
 - i. The new incinerator, how it works, the importance of segregating glass and metals (based on current collections) and how this benefits the Island; and
 - ii. The existing recycling services available on AI, understand how to participate, are motivated to do so are aware of the benefits and recycle as much as possible.

2) Methods

- a. Use of the Recycle Now brand to create a consistent visual identity and ensure that communications materials are attractive, easily recognisable and understood.
- b. Use of behaviour change theory – the EAST framework (Easy, Attractive, Social and Timely)
- c. Removal of barriers and appropriate messaging

- d. Use of the island communications means; AIG website, Islander newspaper, notice boards, info leaflets in homes and global emails
 - e. Conducting public workshops hosted by the EOs
- 3) Monitoring and evaluation of the services success compared with the quantity of communications information issued

Activity 4.3 Establish education package using “Recycle Now” materials (licence agreed with WRAP)

The licence for the use of the Recycle Now brand has been agreed and the use of the Recycle Now brand already incorporated into communications literature, see the Islander notices at Annex 4.8.

Activity 4.4 Engage with WRAP to transfer materials and implement action plan

See comments on Activities 4.2 and 4.3

3.2 Progress towards project Outputs

Output 1 – Develop and implement a strategic framework for waste management on Ascension Island

The baseline timings to complete this Output were August 2018.

The basis for the strategic framework or waste management plan is now in place, see the Feasibility report.

Due to the EOs being unable to commit their agreement to the proposed strategy in the steering group meeting in October 2017, the programme for the preparation of the waste management plan has required variation. This agreement was also sought to facilitate the procurement of the recommended incinerator for Ascension.

However, given that the lead time for the incinerator from procurement commencement to installation on Ascension is 10 months. A decision had to be made to proceed with the procurement in November to ensure delivery of this key infrastructure within the project timescales. Therefore in conjunction with the Ascension’s Administrator at the time; Mr Nick Kennedy, it was agreed that procurement of the incinerator would proceed. The engagement of the EOs and production of the waste management plan would then follow the completion of this procurement exercise.

The procurement of the incinerator was completed at the end of March 2018 and a contract was entered into with Addfield Environmental Limited to design, build and install the incinerator on Ascension by September 2018.

The preparation of the draft waste management plan for discussion is currently ongoing. The revision to the programming means the completion of this Output over the next 6 months in September 2018 rather than August 2018 as originally intended.

The revised programme at Annex 4.16 shows these changes and completion by project close in October 2018.

Output 2 – Training and capacity building both on island, with other OT’s and with technical experts in the UK

The baseline timings for this output were completion by Sept 2017.

This output was completed on 14th September 2017. The activities were completed in accordance with the programme and in good order for the completion this Output and of the subsequent activities, e.g., the Feasibility report.

Output 3 - Reuse and Recycling - conduct a feasibility report and action plan for post processing

The baseline timings for this output were completion by October 2017.

This output was completed on 10th October 2017. The activities were completed in accordance with the programme to allow for the completion this Output and of the subsequent activities.

Output 4 - Waste Segregation / Recycling and Reduction - Education of the Public

This output has 2 main aspects; establishing a waste wheel report and planning and implementing a communications strategy.

- Waste Wheel – the baseline completion date for this was September 2017. This was completed and a report issued to WRAP on 11th September 2017 (see Annex 4.2).
- Communications Strategy – the baseline completion dates for this were to have transfer of licence and materials and implement the communications plan by June 2018 with campaign materials and information shared across the island by August 2018. The communications plan is complete with implementation to proceed starting in May 2018. These activities will be complete in accordance with these stated timescales. The project leader has secured additional funding for the project from the Blue Marine Foundation who will provide a communications officer from St Helena to assist in the project and implement the communications strategy. The communications officer will attend Ascension from July to August to complete this activity.

Based on the above, the Output will be delivered according to the programme and the timescales of the project.

3.3 Progress towards the project Outcome

The overall progress made towards the Outcome has been in line with the programme. As discussed in 3.2 above, there has been a programme variation in the production of the waste management plan; this can still be completed in the timescales of the project. All other outputs are either complete or on target for completion in accordance with the programme. Therefore the project Outcome remains on target for completion by the end of funding in October 2018.

The indicators for the Outcomes are the completion of individual work items such as the provision of reports and preparation and distribution of materials. In each of the Outputs, evidence in this format has been provided in the Annexes as referenced.

The basis for the indicators is the amount of work carried out by the Project Leader and time available to carry out that work. The programme provided at Annex 4.16 and the timescales presented are based on principles of project management, knowledge and previous experience of the Project Leader in estimating timescales for activities. In this respect, where there has been no outside influence on changes, the estimated timings have proved to be correct within acceptable margins of error, for example the timings of the preparation of the waste wheel sorting and report, the SAOT workshop or the Feasibility report.

3.4 Monitoring of assumptions

The main project assumptions are provided below referencing the Outputs:

Assumption 1: Waste quantity and composition data collection required for evidence based decisions on Feasibility report and resultant Waste Management Plan

Output: 1 and 3

Comments: This assumption remains true.

Waste data was collected and continues to be collected to provide the foundation on which to base the waste management plan.

Assumption 2: Engagement of the EO's is a key driver to progress the project from inception to completion

Output: 1
Comments: This assumption remains true.

The activities relating to engagement of the EO's have been described in Section 2 under "Informal Partnerships".

Assumption 3: Engagement of the public is a key driver on effectiveness of reducing waste and increasing recycling

Output: 4
Comments: This assumption remains true.

The public has been informed of the progress made in the project to date. They have been consulted in forums to understand their level of engagement and this information is to be used along with social marketing strategies to effect behaviour change.

3.5 Impact: achievement of positive impact on biodiversity and poverty alleviation

In terms of the impact to the biodiversity conservation, the improvement to the waste management practices on Ascension will have a positive effect on the environment and its habitats. The installation of a high temperature incinerator will remove the source of airborne pollutants (including potentially persistent organic pollutants such as dioxins and furans) emanating from the current practice of open air mass burning of waste.

Overall, the improvements to the way that waste materials are managed on Ascension will reduce the current risk that is posed to its environments.

The alleviation of poverty is not an objective or result of this project. Ascension Island is a working island and all persons living here are contracted employees living in accommodation provided with power, water and a food allowance included.

4. Contribution to the Global Goals for Sustainable Development (SDGs)

Whilst the project does not have explicit targets for achieving SDGs, it will in effect contribute to the following SDGs and their targets:

Goal 9 – Industry Innovation and Infrastructure, targets:

- Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all
- By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Goal 11 – Sustainable Cities and Communities, targets:

- By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
-

Goal 12 – Responsible Consumption and Production, targets:

- By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

- By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

5. Project support to the Conventions, Treaties or Agreements

The project will contribute to the Convention on Biological Diversity and the following Aichi Targets

- Target 4: Governments, businesses and people have taken steps towards sustainable production within ecological limits
 - The promotion of the project and the implementation of the strategy will likely result in reducing of the production of waste materials
- Target 8: Pollution is brought to ecologically safe limits
 - The current practice of open burning of waste will cease and so will the resultant pollution of the environment from this.
 - The storage of hazardous waste materials will be controlled and managed. The materials will either be responsibly destroyed on the island or shipped to an appropriate destination for recycling or treatment by licenced contractors
- Target 9: Invasive alien species are controlled, managed and prevented
 - The installation of the incinerator will reduce the amount of waste that is left prior to burning operations take place. This will assist in the control of the population of invasive rats on Ascension.

6. Project support to poverty alleviation

There are no objectives relative to poverty alleviation. See comments at Section 3.5.

7. Project support to gender equality issues

There are no objectives relative to gender equality issues.

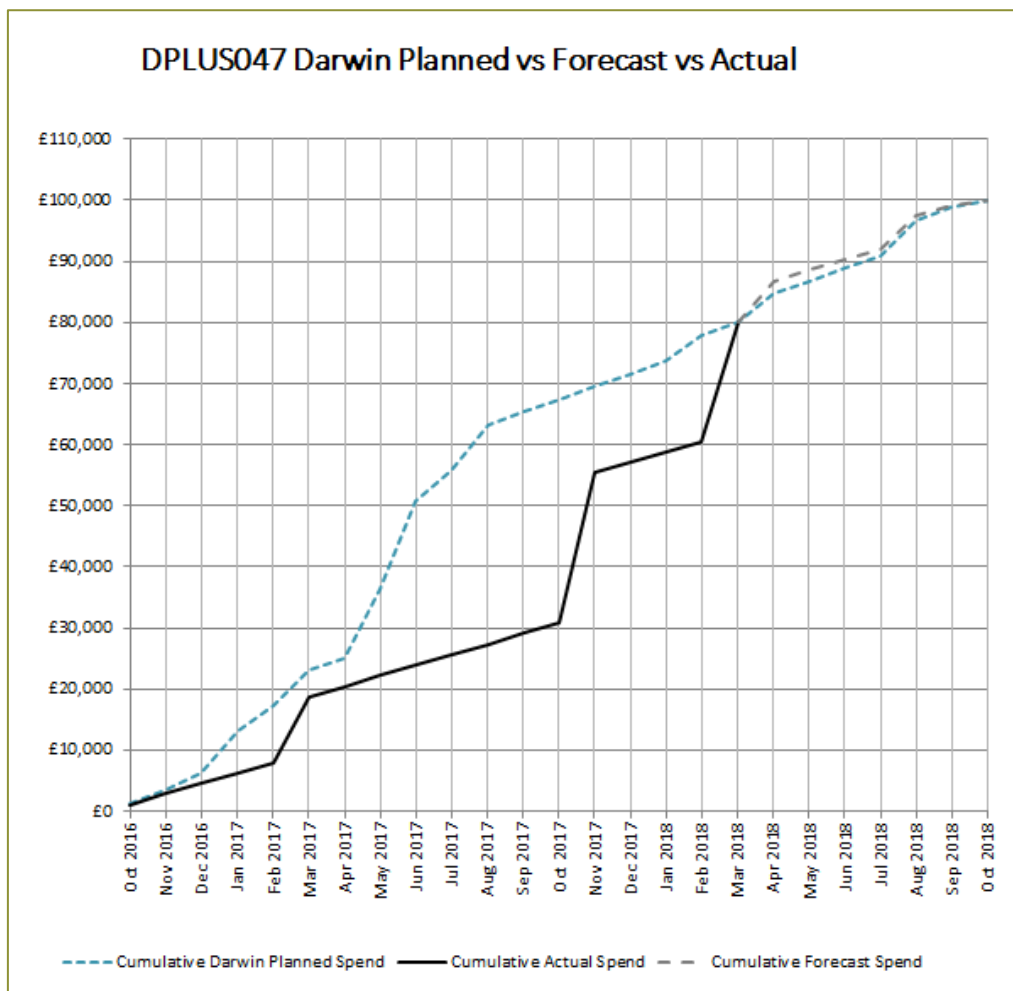
The project is being conducted in accordance with the Constitution of St Helena, Ascension and Tristan da Cunha and in particular Chapter 2, Part 2 Fundamental Rights of the Individual.

8. Monitoring and evaluation

In terms of general project management, the methods to monitor and evaluate are through the project indicators of cost and time and what activities have been achieved for these.

For project costs, there are month by month measurements of forecast and actual expenditure and how this compares to that planned at inception. Figure 5 shows the output “S-Curve” for the actual and forecast spend when compared with the planned spends in October 2016.

Figure 5 “S-Curve” of Actual and Forecast Spend compared with that Planned in October 2016



For project time, this is managed through a programme which is run through software called Microsoft Project. This software enables comparisons with the baseline programme and the actual and forecast programme at a glance. A copy of the programme to date is provided at Annex 4.16.

The monitoring of the critical assumptions and risks is carried out using a risk register which is updated over time. The risks and assumptions with mitigation and treatment strategies are attached at Annex 4.17.

For each of the activities, they contribute directly to the Outcome of the project through four outputs which are all dependent on each other and in most cases they run sequentially with the previous activity requiring completion before the next can be started.

9. Lessons learnt

The main lesson learnt over the year covered by this report is the activities required to ensure the engagement of the EO stakeholders and not receiving their agreement to the waste management plan.

The engagement strategy was as follows:

- Agreement of project principles to ensure stakeholders are aligned with the project’s objectives
- Setting up of the stakeholder Waste Steering Group to enable information to be shared and upfront decisions to be made on the direction of the waste management plan

As all stakeholders had previously agreed to the project principles and to the outcomes of the WTTR, it was assumed likely that they would agree to the outcomes of the Feasibility report

leading to commitment on the procurement of infrastructure and the drafting of the waste management plan. However, this agreement was not received. In a review of the reasons for this, the Project Leader has identified the followings lessons learnt:

- 1) Indicative costs were provided for the proposed new waste treatment scheme – but no comparison could be made to current commitments. The comparison should have been included.
- 2) The Feasibility report and the briefing note to Meeting 2 of the Steering Group referred mainly to costs and not necessarily the benefits of the new scheme.
- 3) The above should have been presented to individual parties at first view to allow comment and then follow up at the Steering Group where comments or concerns would have been addressed.

In taking the waste management plan forward over the next 6 months, the above lessons learnt will be applied.

10. Actions taken in response to previous reviews (if applicable)

The review of the 1st Annual Report number AR1 presented queries to be addressed in the project and in this report. These and their responses are shown below:

- 1) Document and review the original assumptions and lessons learned.

Response:

The original assumptions remain the same and are presented at section 3.4.

The lessons learned in report AR1 related to the utilisation of the knowledge and experience of the waste management team on Ascension (a positive) and the requirement for micromanagement of critical orders shipped from the UK (a negative).

The project has continued to utilise and work closely with the waste management team during the development of the strategy and the specifications for proposed infrastructure and in particular, the incinerator. This is in order to align these items with the future operations by the team. An example of this, albeit just outside the timescales of this report is the Waste Management team leader's attendance at the design review meeting for the incinerator.

The management of the orders shipped from the UK has been given increased focus on 2017/18.

- 2) What evidence is there of the growing profile of the project?

Response:

This was based on anecdotal evidence from conversations between the project leader and the public in social situations. Members of the public are aware of the project leader's role on the island and what initiatives were being proposed, e.g., glass collections.

- 3) Clarify the differences in figures on waste.

Response:

The figures used in the waste training documents were all assumed as it was prior to actual measurement have been taken – the figures in the report were based on the actual measurements.

11. Other comments on progress not covered elsewhere

The investment in capital infrastructure for the project was due to come from the financial reserves of AIG and approximately £1 million was set aside for this purpose. In the past year however, the island's runway has deteriorated and direct flights from the UK have stopped and assessments made on the island key infrastructure (sewerage treatment works, domestic

power distribution, the main port crane and others) has indicated that these items need replacement.

The lack of a direct link with the UK has meant a reduction in the number of tourist visitors to effectively zero and any supporting businesses have ceased trading. In addition, whilst there is uncertainty (whether real or perceived) on the timings of the runway repairs, there is a general consolidation of the workforce on the island and population numbers have dropped. This has resulted in less revenues coming into AIG.

The need for replacement of critical infrastructure has resulted in additional costs that must be borne by AIG.

With these financial pressures on AIG, the provision of the financial reserves for the needs of this project cannot be justified and these funds are no longer available. In order to mitigate this, funding has been sought from the UK government and this was secured for the incinerator through the Conflict, Stability and Security Fund (CSSF). However, other aspects of the waste management project will not be delivered, such as the glass crusher. The provision of this and other items will need to be sourced from other forms of funding and these will not be realised at least into the next financial year.

The overall scope of the waste management plan will remain the same; however, the full range of capital investments will not be available in the timescales of this project. They will need to be phased over time using resources from within AIG.

12. Sustainability and legacy

The exit strategy has not changed; the approach is to build upon the training carried out to date through the implementation of the infrastructure through a process of phased handover and project close out.

For the waste management team, this will include the preparation of operational documents and manuals that will detail how the process of waste management – from collections, operation of infrastructure and administration. For AIG and the island as a whole, this will be effecting the changes to legislation that will be required to underpin the waste management plan in the long term.

The waste management plan will detail the phasing requirements for capital investments to be taken forward by AIG.

13. Darwin identity

The Darwin identity has been promoted on all literature, reports and presentations. The presentation style and colour scheme of all literature has been designed to replicate the Darwin website. This is evidenced in the reports and presentations attached in the Annexes of this report. This has been expanded upon since the previous year by showing the Darwin logo prominently on the cover of each document and including more information on the Darwin Initiative goals and its achievements within each report or document.

The Darwin Initiative funding has been stated as being the reason for the existence of this project wherever possible either in written or verbal forms.

14. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2017 – 31 March 2018)

Project spend (indicative) since last annual report	2017/18 Grant (£)	2017/18 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				

Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Monitoring & Evaluation (M&E)				
Others (see below)				
TOTAL				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2017-2018

Not applicable – application less than £100k

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Not applicable – application less than £100k

Annex 3: Standard Measures

Not applicable

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	✓
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	✓
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you involved your partners in preparation of the report and named the main contributors	✓
Have you completed the Project Expenditure table fully?	✓
Do not include claim forms or other communications with this report.	