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Edited Points taken from Environmental Report dated 5 March 2002 and written by Commander J M W Topp Royal Navy (Retired), BIOT Conservation Consultant

1. Water

Fresh Water is well engineered and very well managed. There are no current problems. There was a fear that there would be a water shortage but it has not materialised. BRITREP advised that the ROWPUs were not to be used and are clearly surplus to needs. A second nano filtration plant to provide drinking water has just been installed which makes the use of a ROWPU even more unnecessary.

2. Wastewater

The two major sewage lagoons are called Air Ops and R-Site. In September it was considered that the increase of 2,500 in Tent City would overload the Air Ops lagoon. Various options were considered, costed and one selected which involved the installation of surface aerators. These have now been installed and are working well.

3. Solid Waste

The disposal of solid waste has run into further problems since the incinerator broke down beyond repair in January 2001. It took 5 months to replace this incinerator which shortened further the life expectancy of the landfill which had already been extended by raising the height to 18 feet above mean sea level. The USAF deployment means that the landfill will reach capacity probably this year.

composting would save money & prevent topsoil.

Various solutions are in hand including the installation of a second incinerator, raising the landfill to 24 feet, and procuring a grinder that will divert waste from open pit burning to the incinerator. These are interim measures until MILCON funding provides the Solid Waste Management Centre. This includes the construction of a new landfill, a solid waste segregation facility, a new incinerator, a recycling facility and a composting facility. There is a need for a more urgent installation of the new Solid Waste Management Centre than the probable 2007 and the composting facility. Are waste metal and glass removed from the island?

④ USAF Oil Spill Recovery

Recovery ceased on the South Apron with the USAF deployment in September 2001. The longer the recovery the more the fuel enters the ground. This current lack of recovery aggravates the problem. The oil has now been there for 11 years. A more rapid solution is sought.

5. Minor Oil Spills

Oil spills of less than 100 gallons occur in Diego Garcia ashore or in the lagoon at the rate of at least once a week. The spills are usually quickly reported and cleaned up.

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6. Erosion

Two USN engineers conducted a comprehensive study of shoreline erosion late August early September. Five major (and some minor) problem sites were identified, analysed and an engineering solution determined. The site which had most concerned the conservation consultant, i.e. that on the ocean side of the Fuel farm, has already been partly repaired. Further work will be carried out in due course. Two other sites are near by and also within the 4 mile stretch of ocean coastline where in the 1970s the reef flat was blasted to obtain fill material.

One of the NRMP (Natural Resources Management Program Diego Garcia) listed items which has still to be addressed is the study of the 4 miles of ocean reef south of Simpson Point and along the airfield where reef flat rock was blasted to provide a base for construction. This should now be made a priority. The NRMP requirement is 'Conduct baseline survey of dredged reef area (\$16,200)' and 'If required, establish additional monitoring stations on reef (\$24,800)' and 'Continue monitoring/maintain stations (\$3,000 a year)'.

This project has since been addressed and submitted for assessment to PACDIV in Hawaii. The recommendation was to include this requirement in the NRMP update this year. The sums involved are small compared with the over \$1 million estimated for repair of the 5 sites. Fortunately tides prevented the reef blasting from getting close to the reef edge.

Erosion is now being recognised as a problem and a long-term problem which it will be increasingly expensive to contain. Global warming aggravates the problem. Sea level is predicted to rise between 0.5 – 1 cm a year. The measured sea level rise in the nearby Maldives of which Chagos is a continuation has been between 5.8 and 8.5 mm a year over the past few years. The Intergovernmental Panel on Climate Change predicts a likely acceleration in sea level rise as time passes.

Many shallow reef surfaces have 'dropped' 1.5m due to loss of dense coral thickets, coral erosion is substantial and there is much unconsolidated rubble. Juvenile corals are abundant, though most are found on eroding or unstable substrates. There is a 'race' between erosion and new growth. Sea surface temperature has risen. Many islands have been surveyed and most islands have a raised perimeter surrounding a central depression located near or even below sea level. Protecting the islands from erosion are (or were) three 'lines of defence': firstly the now absent seaward coral thickets; secondly the algal ridges at the seaward edge of the reef flats and, thirdly, wide expanses of reef flat located near present sea level, across which waves decay. Reduction in effectiveness of any of these will transfer wave energy inward to the shores and elevated rims of the islands. Consequences could include erosion or even breaching of island rims.

There will be other deleterious effects such as a reduction in fresh water lenses. It is possible that Chagos will become uninhabitable this century. What is needed is scientific data. The USN has already produced a document "Vision 2016" when the current Agreement reaches its 50 year point. All parties to discussion in and of the future need the facts and the longer in time and better the data base the more valid are likely to be the predictions. The installation of a GIS is planned and together with

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existing GPS a survey of Diego Garcia with cross section profiles may show similar depressions to the other islands.

7. Cats

The conservation consultant on his last visit spent an hour with the cat eradication lady Theresa Moore of the US Department of Agriculture Wildlife Services. She is dedicated to her task and has done and continues to do an excellent job. The number of cats remaining is probably in single figures and these cats will be the most difficult to eradicate. However the program is on track and is expected to succeed. The contract ends in August. Congratulations all round.

8. Rats

The cat eradication program has also caught and killed 6578 rats. This is in addition to the number caught by DG21 in their rat control effort, which is considerable. It is hoped that the rat eradication program will start when the cat eradication program finishes.

9. Bird Aircraft Strike Hazard (BASH)

Egrets are the problem here and they are being shot and their eggs removed from nests. In 1985 there were probably less than 100 egrets. Numbers rose to nearly 2,500 in the late 1990s. Currently the number is probably about 1,000. This is a well managed program that should be allowed to continue. All the other land birds flourish in large numbers.

10. Red Tailed Tropic Birds

This is a success story. Mr. Nestor Guzman, the DoD Filipino Biologist in the Environmental Department, found 2 nests in 1996 opposite the Beach House and behind the sports ground. He protected the site and has been rewarded with 6 nests in 1997 and two additional each year to the 2002 number of 16 nests, which the conservation consultant has seen with the birds on them.

11. Snakes

There are no snakes in the Chagos Archipelago. We have been aware of the Brown Tree Snake problem in Guam and ships have in the past not been permitted to sail direct to Diego Garcia from Guam to avoid the introduction of this devastating species. Diego Garcia hosted its first Brown Tree Snake awareness training session on 12 April 2001. Nestor Guzman is shortly to undergo a training course on the subject in Guam. It would be an environmental disaster of the first order if the Brown Tree Snake invaded Diego Garcia. Every effort should be made to keep the snake out.

12. Lagoon

Monitoring of pollution in the lagoon is advisable. The current number of ships is at the maximum level planned and possible. It is in everyone's interest to keep the lagoon clean.