## Medium Term Conservancy Works.

The arrangements for 'emergency' works in the Conservancies are now established and ongoing. Grant funding has been secured from several donors, and is being administered partly by UNDP and partly by MoA. A number of construction contracts have been let, and more are about to be. Supervising consultants (Guyanese) have been engaged and international consultants appointed to liaise and co-ordinate activities. In short, effective emergency arrangements are up and running, and expected to deliver the required outputs by mid-May as scheduled.

Looking ahead, the medium term can be conceived of as the shortest possible time in which to design and construct the essential major works that will protect the area downstream of the conservancy. The issue of whether the Task Force is to continue and have control over the medium term works would need to be debated. The institutional arrangements for coordinating these works may be different from those for the emergency works. Funding would be subject to greater review before commitment and will have to be administered in routine fashion, rather than the exceptional arrangements agreed to by all in order to expedite the procurement and implementation of the current emergency works.

The initial report by the UN engineers outlined the need for medium term and long term activities of a much more substantial nature. The subsequent report prepared by geotechnical/dams specialist Mr C Wagner has reinforced the urgency of undertaking substantial works to safeguard the dam, especially in the North-East section running East from Flagstaff for a distance of about 8 miles. While there will be other works as well, it is regarded as essential that a programme to address this section is set up immediately. This item will be on the critical path. Other items including the 'flow' study are important but can fit in the time frame more easily.

Mr Wagner's report recommends construction of a new length of low embankment dam a short distance below the existing dam over a length of about 8 miles. This embankment would be on state land/abandoned Guysuco land, and so land take would not be a significant issue. The surface soils in this area are mainly pegasse (peaty material containing a lot of organics/vegetation) overlying clay. It is understood that in some areas there may be other pegasse layers below clay bands. Site investigation to prove the foundations for a new embankment, and to obtain geotechnical characteristics of the embankment materials is essential.

It should be noted that there is also a proposal for 'MMA2' - an additional dam upstream of the present conservancy - which would largely obviate the need for new major works at the existing dam. The new MMA2 would store water and release it gradually into the conservancy as required for irrigation etc purposes, and allow the operating level in the existing conservancy to be kept appreciably lower than at present. This proposal has not yet been confirmed, the status of this would be a key element of the decision processes regarding other works. Some repair works would still be needed at the existing conservancy if MMA2 goes ahead.

There are several actions and decisions that are needed to progress the work if a new 8 mile section of embankmenmt vis to be built. These are noted below together with an outline time frame. The works would take significant time to complete,
possibly of the order of 18 months. Detailed engineering investigations and design work are required before before work could commence. Site investigations are already being commissioned, and will provide further information on which to base designs.

As an initial scenario therefore, a 6 month preliminary phase (May - October 2005) followed by an 18 month implementation phase (Nov 05 - April 07) is considered. This would allow for completion in advance of the main rainy season in 2007. The emergency arrangements currently inplace would need to be reviewed and closely monitored for the intervening time period between now and 2 years time. The attached programme shows how the actions that must be taken could fit in to the time frame. This results in some very short times for all key preliminary actions. The time frame is determined on the basis that it would not be possible to complete works by mid 2006; mid -2007 is the earliest practical date for completing the works; and mid -2008 is an easier target date but would have increased risks associated with delaying the completion of the urgent works.

The financing of the suggested embankment is a major issue to be addressed by Govt. of Guyana. Although no estimates are available yet, it is likely to run into tens of millions of US\$ (the initial UN report mentioned US\$50m for medium term works). Whilst donors have expressed support for these works the reality is that securing agreements for new loans and/or grants, or to reassign funds to this purpose, will take time. GoG should urgently look to ways of securing interim finance pending firm agreements. GoG may also want some more detailed analysis and formal recommendations before committing to such a large expenditure.

Preliminary outline schedule for medium term conservancy works.


