GOVERNMENT DIGEST
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King William's Town Bulk Sewerage Scheme project to have significant effect on community

Consulting engineering company GIBB are currently involved in numerous challenging projects throughout the country, from the King William's Town Bulk Regional Sewerage Scheme, to the East London Industrial Development Zone Waste Sorting Facility and the Cofimvaba Rural Electrification Turnkey Project. The King William's Town Bulk Sewerage Scheme project is one of magnitude and when completed, will have a significant impact on the lives of thousands.

Four wastewater works currently serve the area of King William's Town and these plants vary from oxidation ponds to conventional trickling filters. In some cases, these works have reached the end of their design life and are therefore not able to meet the required final effluent standards. GIBB has been involved in the strategic planning and financial evaluation of the scheme from its inception some years ago.

"GIBB's involvement in the King William's Town Bulk Regional Sewerage Scheme is of particular significance because of health and safety requirements", says Dave Clark, Project Director at GIBB. "Our objective is to create a consolidated regional network with a treatment facility at Zwelitsha that will serve the entire area."

The existing Zwelitsha works will eventually be upgraded to a 35 megalitre per day plant.

The King William's Town Bulk Regional Sewerage Scheme is divided into five phases spread over a number of years and the total cost of the project is estimated at approximately R400 million. Phase one sees the construction of a 7 km long bulk outfall sewer from the existing works at Schornville, to the Zwelitsha works. Phase 2 comprises the upgrade of the Zwelitsha works to a 17.5 megalitre per day activated sludge plant. Once this extra capacity has been created, the area of Breidbach can be connected to the scheme in Phase 3. Following on from this, Phase 4 will incorporate the sewage from the Bhisho area into the scheme, via a 12 km bulk outfall. Finally, in Phase 5, the treatment works will be upgraded to a 35 megalitre per day capacity, to allow for the planned future growth of the area.

"Aspects that have been particularly challenging with regards to this project include the widespread location of the existing small works, difficult terrain conditions, and the new sludge handling requirements issued by the Department of Water Affairs," continues Clark.

"These guidelines state that all sludge handling options must be investigated, and if all other options have proved unsuitable, only then is the dumping of dried sludge on a landfill allowed. None of these challenges proved impossible for Project Leader Victor de Wet, and that is why this project has been so successful."

The treatment works will generate six to eight tons of sludge per day at full flow capacity. Various sludge handling options are being investigated in order to determine the most economical and sustainable solution.

The decommissioning of ineffective and overloaded treatment works will contribute towards the overall improvement of water quality within the Buffalo River System. The water treatment works is sited downstream of the wastewater treatment works. By improving the treated effluent quality, the clear water system will also benefit.

"The King William's Town project is a positive one and will hopefully deliver sustainable results," concludes Clark. "We have consulted with the community, considered them in the process and in the long term the completion of this project will unlock development, particularly in the housing sector."

GIBB will take this project further to complete the detail design and facilitate the implementation thereof. The completed project up to commissioning should take between four and six years. ■