



## Editorial/White Paper

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### **High Tech SCADA and Telemetry Upgrade - Fishwater Flats Sewage Treatment Works– Nelson Mandela Metropole**

The upgrade for the SCADA and Telemetry at FWF was recently awarded to Service Electrical in Port Elizabeth. Service Electrical is the Local System Integrator for the SSE Data Networks (Telemetry Equipment) and Citect (SCADA Products) in the area.

This prestigious project involves the installation and commissioning of a Citect SCADA at the Control Room and four remote SSE RTU's monitoring and controlling the inlet works, aeration ponds and clarifiers.

The remote SSE RTU's will communicate via Wireless LAN back to a Citect server plus 5 display clients situated at the Control Room on the works.

The wireless LAN will enable future RTU's to be installed on the works without the need to run network cables in this harsh environment back to the Control Room.

The SCADA Configuration involves an initial 4000 tags for the first phase and approximately 8000 tags in the future.

The Citect SCADA at the Control Room is updated as events occur and Data such as Levels, Flows, Alarms and Motor Run Hours are logged and Trended by the Citect SCADA at the control Room. The system will run automatically as well as allow operator intervention should manual override be required

Each SSE RTU10 has powerful PLC logic and is able to control plant in the field. The SSE RTU 10 also has a powerful user interface which enables programming of the RTU as well setting up the preferred communications means through the communications orchestrator. The RTU supports all major communications methods namely Wireless LAN, Radio, Ethernet, USB, Fibre Optic, GRPS and conventional Cellphone Communications.

The RTU is the same as the units employed by the Metropoles pumpstation monitoring telemetry system. This contract awarded in 2003 to SSE Data Networks involves the monitoring of sump alarms, levels and pump status at 70 remote sewage pumpstations. This system makes use of radio communications between the master station and the remote stations in the field.

The SSE Data Networks RTU10 and the Citect SCADA are a perfect combination and have the automation ability to cater for the future demands of this High Profile Treatment Works.

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**View of Fishwater Flats Sewage Treatment Plant.**



**The Existing Mimic Panel soon to be replaced with Computer Based Citect SCADA Mimics and Trend Screens**

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