

# VIROSEWAGE TECHNOLOGY

Municipal Wastewater and Biosolids Treatment



Sewage Treatment • Sludge Treatment •  
Phosphorus Treatment • Organic Waste Residues •  
Composting • Odour Destruction

# VIROSEWAGE TECHNOLOGY CAPABILITY STATEMENT

ViroSewage Technology treats municipal wastewater and biosolids to exacting discharge standards that enhance the potential re-use of biosolids and thereby ViroSewage Technology delivers a range of commercial, operational and environmental benefits to Sewage Treatment Plants (STP).

ViroSewage Technology treats municipal effluent to the most stringent discharge limits, thereby limiting the possibility for eutrophication and other 'downstream' problems. ViroSewage Technology also produces superior biosolids that are free from objectionable odour,

are phosphorus enriched and environmentally safe due to unmatched heavy metal immobilisation. ViroSewage Technology is therefore at the forefront of effluent and biosolids re-use capabilities.

ViroSewage Technology reduces phosphorus concentrations in the influent stream by up to 99% or <1.0 mg/L and reduces Total Suspended Solids (TSS), Biological Oxygen Demand (BOD), and ammonia, and enhances STP throughput and hydraulic capacity due to improved settling properties of the wastewater stream. The application of ViroSewage Technology at

a Biological Nutrient Removal (BNR) plant, not only ensures the removal of over 99% of phosphorus from the effluent stream, it allows the BNR process to concentrate exclusively on the removal of nitrogen, improving the efficiency of the process and effectively reducing manpower hours needed for critical ongoing BNR management.

ViroSewage Technology also eliminates phosphorus in the centrate (or filtrate) line by up to 99% and improves the quality and rate of biosolids digestion, resulting in a denser, lower volume of solid waste to be dewatered

and disposed or recycled. Treated biosolids have been shown to compost more readily, producing a more nutrient-rich and valuable compost.

ViroSewage Technology improves treated water quality to ensure licence conditions are met consistently and the environment is protected, and allows multiple options for biosolids re-use to be explored.

Contact our team of professionals today to effectively treat the waste stream at your STP, and to transform your waste into a valuable resource.



## VIROSEWAGE TECHNOLOGY

### Municipal wastewater and biosolids treatment

ViroSewage Technology delivers a range of commercial and environmental benefits to Sewage Treatment Plants (STP's).

ViroSewage Technology binds heavy metals into non-bioavailable forms, reduces phosphorus, nitrogen and objectionable odours from sewage effluent and centrate, reduces Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) in the effluent stream, and treats biosolids for pathogens, odour and other contaminants, while maintaining a stable pH.

The addition of a small amount of reagent to the solid stream enhances the composting properties of biosolids, resulting in reduced composting time and improved compost quality.

ViroSewage Technology is easily integrated into existing treatment facilities—it involves a simple engineering retro-fit and the application of ViroSewage reagents. Furthermore, it delivers cost savings of around 40% on traditional treatment systems.

**Technology that sets new global standards for sewage treatment. Eliminates odour, removes phosphorus and produces environmentally safe, recyclable biosolids.**

[virotec.com](http://virotec.com)

## VIROSEWAGE

*Reduces BOD, TSS and phosphorus*

A reagent that provides for the effective reduction of BOD, suspended solids, nutrients (phosphorus, nitrogen) and heavy metals. It destroys *Escherichia coli*, prevents algal and fungal blooms, results in less sludge and removes odour.

## VIROBLEND

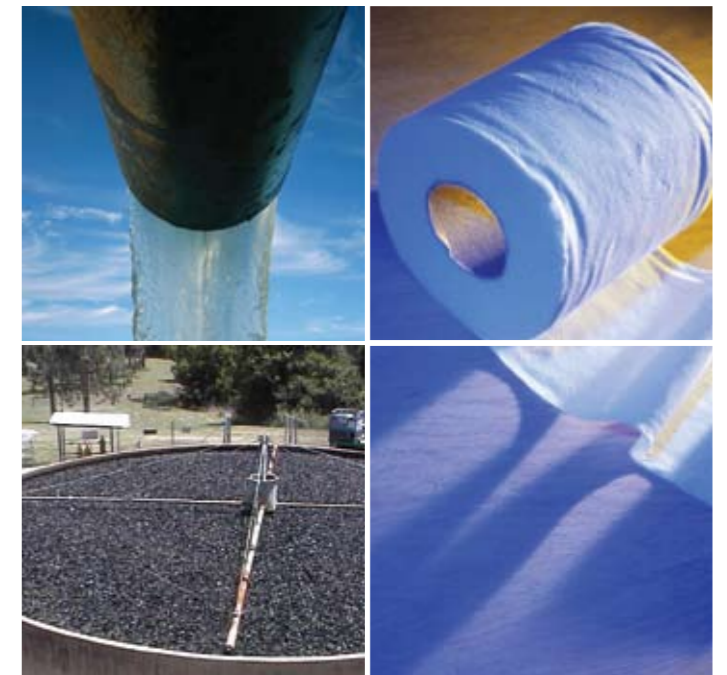
*Improves soil quality*

A reagent designed to improve compost blends, and retain nutrients (phosphorus, nitrogen, potassium) for horticultural and agricultural use. ViroBlend reagent stabilises composts and permanently binds heavy metals into non-bioavailable forms.

## VIROSOLID

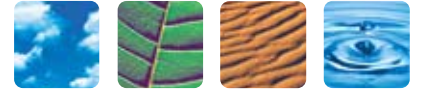
*Improves dewatering properties*

A reagent designed to improve the dewatering properties of sludge. ViroSolid reagent helps to reduce polymer usage, and enhances the re-use properties of sludge cake. ViroSolid reagent also stabilises sludge for re-use.



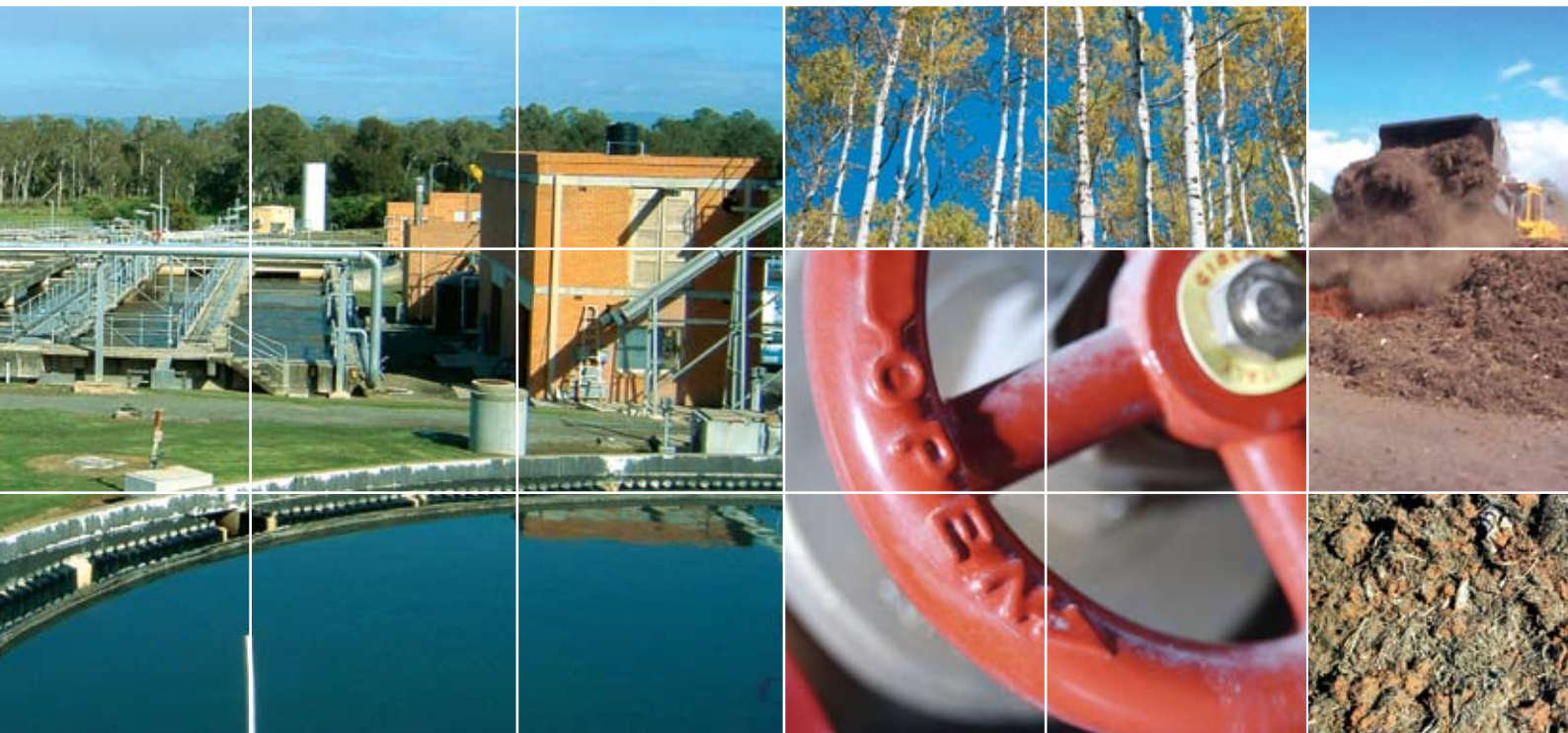
**ViroSewage Technology can be applied to Trickle Filter, Biological Nutrient Removal (BNR) and Activated Sludge facilities.**

TOWARDS A CLEANER ENVIRONMENT



## CASE STUDIES

- > **SEWAGE TREATMENT:** Spotless Services, Royal Australian Air Force, Richmond Valley Council, and QLB Urban Utilities, Australia and Wessex Water, United Kingdom
- > **SLUDGE TREATMENT AND MANAGEMENT:** Redcliffe Shire Council and Pine Rivers Shire Council, Australia
- > **PHOSPHORUS TREATMENT:** Brisbane Water, Australia, Yorkshire Water, United Kingdom, and South Florida Water Management District, USA
- > **ORGANIC WASTE RESIDUES AND COMPOSTING:** NADA Dairy, Saudi Arabia



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