



# Small STP Effluent Reuse

## Effluent Reuse for Small Sewage Treatment Plants

FSA Consulting provides a professional effluent reuse design and management service for small sewage treatment plants (STPs).

Sustainable effluent management for resorts, camping grounds, factories and other effluent producers involves determining the STP's peak treatment and wet weather storage capacity whilst providing adequate area for nutrient and hydraulic loading.

To meet these requirements and assess the long-term sustainability of any current or proposed effluent reuse system, modelling using various software programs including Trench and MEDLI (Model for Effluent Disposal using Land Irrigation) can be undertaken.

The professional team at FSA Consulting can perform nutrient and hydrologic modelling and prepare the necessary documentation such as Site Based Management Plans (SBMP) or Irrigation Management Plans (IMP) for EPA or Council.



**Want to take the hassle out of demonstrating sustainability for your small STP?**

### FSA Consulting offers:

- **Professional Service**  
Our staff are professional agricultural and environmental engineers and scientists.
- **Experience**  
FSA Consulting has a wealth of experience in environmental assessment.
- **Independence**  
FSA Consulting is not linked to any contractor or product.
- **Accreditation**  
FSA Consulting staff hold appropriate accreditations, including RPEQ and Certified Professional Soil Scientist.
- **Personal Service**

**Choose the experienced team - FSA Consulting.**

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## Nutrient and Hydraulic Modeling

FSA Consulting can undertake nutrient and hydrologic modeling using various software programs including MEDLI. MEDLI is a complex, daily-time-step, hydrological simulation model developed to estimate the effluent stream from various industries and simulate, over extended periods, the hydrological and nutrient balance of effluent treatment and effluent irrigation systems.

## MEDLI is the recognised model by DPI&F and EPA for predicting sustainable effluent reuse systems.

The MEDLI services we can provide include the determination of:

- appropriate effluent holding pond sizes or tank capacities;
- evaporation, rainfall additions and seepage from the system;
- sustainable nutrient and hydrologic loadings for effluent reuse areas.

## Design of Effluent Treatment and Reuse Systems

FSA Consulting is experienced in designing effluent treatment and reuse systems to meet regulatory requirements. A wide range of effluent pre-treatment and treatment systems are available and we can work with you to find the best solution for your enterprise. We can also provide advice on composting solid by-products.

## Management Plan and Report Preparation

We will provide you with a professionally bound report for submission to the regulators that fully describes the site, the effluent management system and demonstrates sustainability.

## Sample Collection and Analysis

FSA Consulting can also regularly visit your site and collect samples of soils, water and effluent as part of license conditions. We use GPS coordinates to ensure we return to the same monitoring sites to collect samples, ensuring we compare the same site each time. We ensure all samples are collected, packaged, stored and delivered to maintain their integrity until they can be analysed. Our highly qualified staff provide an easily understood interpretation of the analysis results so that you understand how well your operation is performing. We also provide expert advice on nutrient management issues as required.



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**Effluent Reuse—Small STP** March 2009

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