



Small to Medium WWTP Operation & Maintenance

Sustainable Solutions International is an environmental consultancy committed to a sustainable future. We have upwards of 30 years experience in designing, project managing and maintaining wastewater treatment plant and recycled water systems, and further experience in preventative equipment maintenance management through COMMS (Computerised Operation, Maintenance and Management Systems).

Standard Operating Practice for Small to Medium Commercial WWTP Maintenance

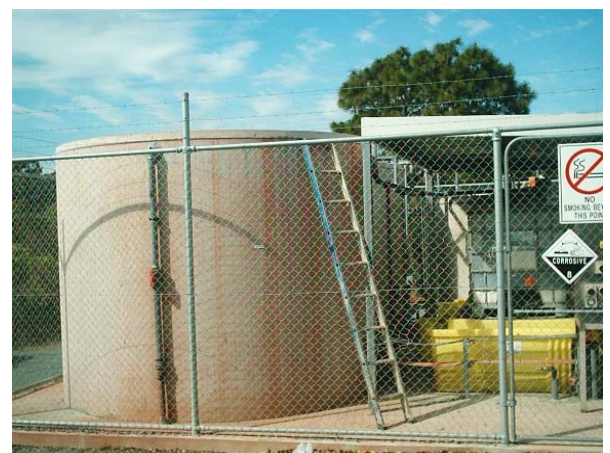
Small to medium sized wastewater treatment plant operators are characterised as operators who prefer an install and forget system, because while operating a WWTP may be integral to their business, it is not their primary business. Typically they rely on a failure based maintenance culture as they do not have a staff member or maintenance crew available for the upkeep of a wastewater treatment plant, nor do they have large budgets available for the implementation of in-house preventative maintenance.



Nonetheless, wastewater treatment plants require maintenance to prevent leaks, overflows and odours, and to achieve the quality of wastewater treatment and the release limits required by the operators EPA or local council license.



SSI have developed a centralized operation, maintenance and management system for de-centralised treatment plants. By relying on SSI's engineering expertise you will have your own personal engineering team, available when you need them. You can then flush and forget, as the ongoing operation, maintenance and management of your WWTP will be fully automated and managed by a team of experienced engineers.



Relying on failure based maintenance exposes owners and operators to a number of risks, including:

Reduced income due to system downtime, as other overhead costs are still incurred,

Increased labour costs at the time of breakdown, particularly if overtime is required to get the system running again,

Cost of replacement instead of smaller repair costs,

Cost of repair of secondary equipment if damaged by the initial failure,

Breach of Operators License if wastewater of poor quality is released, the operator is in breach of the operators license and fines will apply,

Environmental harm if poorly treated wastewater finds its way into nearby water sources, or the environment,

Health and Safety risks posed to staff or the general public through the release of poorly treated wastewater.

Damage to reputation.

Litigation, fines and clean up costs if environmental discharge occurs.



Preventative maintenance

A preventative approach to maintenance uses either run time or component age to schedule unit services. By scheduling services according to the manufacturer's specifications, operational inefficiencies can be prevented or resolved before the component is damaged or fails. Preventative maintenance has the potential to:

Extend component life compared to using reactive maintenance alone

Reduce replacement costs, as damage to components is less severe

Reduce downtime due to fewer failures

Maintain equipment warranties due to adherence to service schedule

Reduce risk of damage to reputation

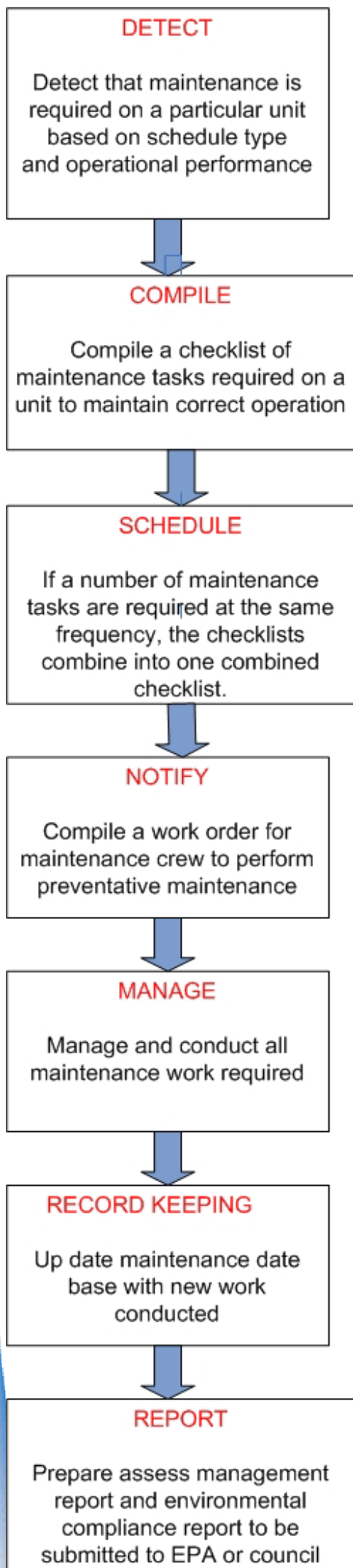
Preventative maintenance is a cost effective *long term* solution.

Enhance reputation through environmental best practice.



Our vision has always been to deliver high quality, sustainable, and cost effective solutions to our clients to ensure many years of trouble free operation.

By extending this service to incorporate WWTP operations, maintenance and environmental reporting into a centralised preventative operational & maintenance system, our clients can enjoy all the benefits of a preventative maintenance program without the expensive setup, nor the delegation of maintenance management responsibility within their own ranks. We can provide our independent engineering team to monitor and manage the maintenance program at each site to ensure each system is minimising all the risks associated with a reactive approach to maintenance management.



The SSI Computerised Operation, Maintenance & Management Systems (COMMS)

In large industry, COMMS is used as an operation and maintenance scheduling tool to track either the run time or the number of cycles of each component of the process. In this way, maintenance visits are targeted to the equipment due for review. Maintenance schedules are initially determined by the maintenance crew and entered into the software according to product specifications.

The purpose of COMMS is to streamline the maintenance management to achieve the preventative maintenance model. The key functions of the SSI COMMS system are as depicted left.

The SSI COMMS system allows its users to have a streamlined and preventative approach to maintenance, with reduced down time, more cost effective operation of equipment and efficient use of maintenance staff. This is in contrast to small to medium businesses where a preventative approach is regarded as a luxury beyond the price range of most operators.

With a centralised preventive system we can raise the bar of de-centralised WWTP operation, maintenance, management and reporting.

We provide a low effort and cost effective operation, maintenance and management program for our clients, and achieve the current best practice model for wastewater treatment; de-centralised treatment and centralised control.



For more information please contact:

Dominic Xavier or Ian Spruce
Sustainable Solutions International
Phone: 07 3255 0000
Fax: 07 3255 0066
Email: office@SustainableSolutionsInternational.com

