



Pilot Study to Improve the Wastewater Treatment System in Yap



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Inadequate treatment of domestic wastewater (sewage) in the Pacific Islands has been responsible for serious human and environmental health problems due to contamination of water supplies and damage to the natural environment. The reason for this can often be attributed to a lack of functional technology due to inadequate funding for both capital investments and ongoing O&M.

On the island of Yap, in the Federated States of Micronesia (FSM), there is a centralized sewage treatment plant (STP) that is designed to provide only a primary level of treatment. Though the plant is well functioning, according to its design, the treatment level is clearly inadequate, resulting in the discharge of nearly raw sewage via a short outfall to the shallow ocean bay.

An upgrade of the existing STP to level capable of providing sufficient treatment power for removal of most dissolved organic contaminants, would require a major capital investment and be met with higher O&M costs as well. However, the possibility exists of fitting an attached-growth medium to the existing unit to serve as a biocarrier, which would allow for retention of beneficial biomass, thus providing the potential for enhanced treatment efficiency.

The objective of the proposed project is to conduct a pilot test by placing biocarrier net material attached to frames in the flow channel of the existing STP. System performance would be evaluated by quantifying removals of organic compounds across the biocarrier test zone over time.



Yap Sewer Plant Sign



Interior of the Yap Sewer Plant