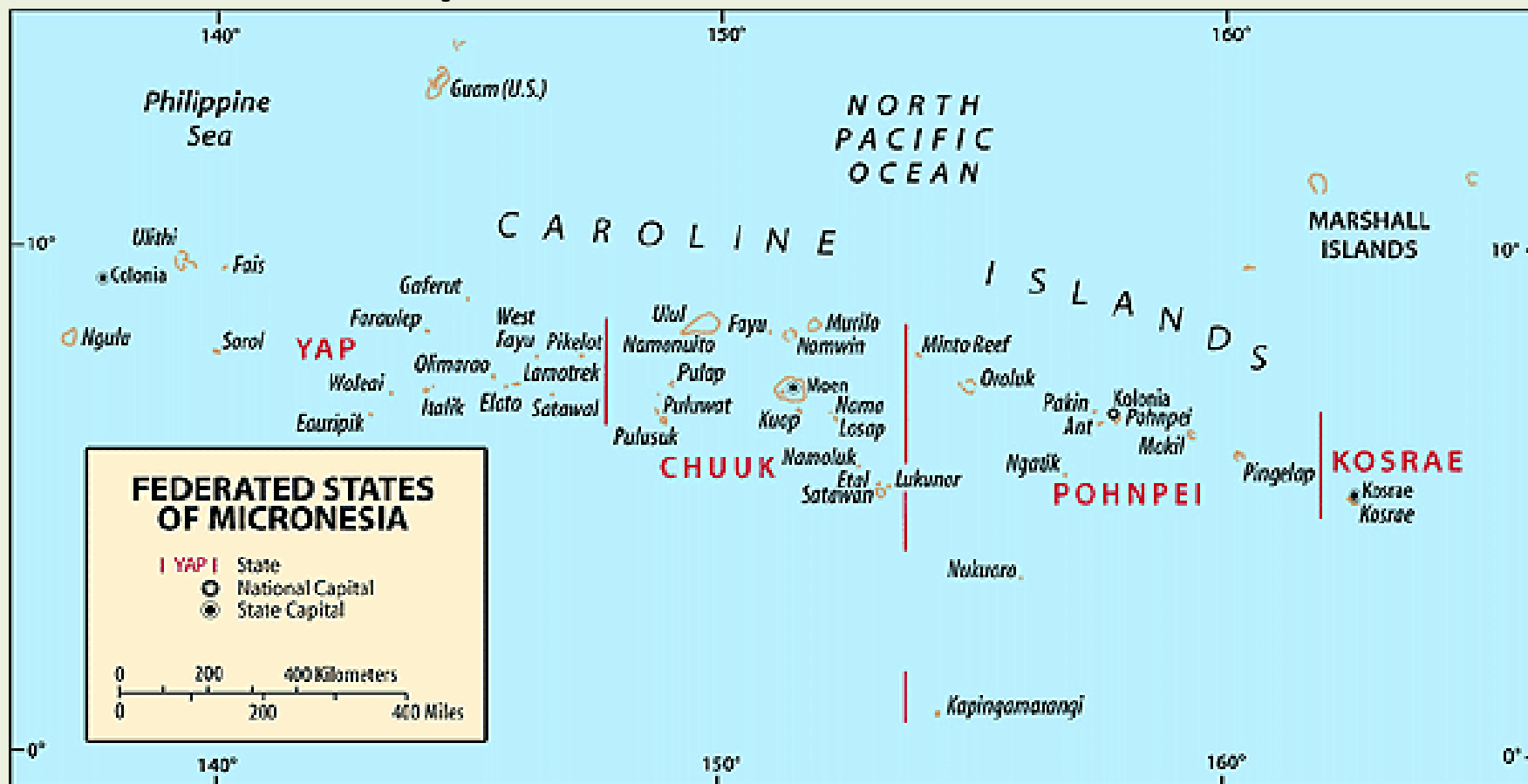


Wastewater in the FSM: Pilot test on Yap

Joseph D. Rouse, P.I., UOG, WERI



FSM population (est., 2010; SBOC): 108,000.

Yap, 12,000;	Chuuk, 53,000;	Pohnpei, 35,000;	Kosrae, 8,000
(Yap Is., 7,000)	(Lagoon, 40,000)	(Pohn. Is., 31,000)	(only one island)

Septic Tanks, etc.

(one household = ca. 6 persons)

Items	YAP	CHUUK	POHNPEI	KOSRAE
Households	2,311	7,024	6,289	1,143
Sewer connection	12%	9%	17%	4%
Septic tanks	31%	31%	35%	94%
Other/none	57%	60%	48%	2%

- + **Chuuk**: Sewer connections may increase soon with restoration of old sewage treatment plant.
- + **Kosrae**: Septic-tank culture working well, though treatment ponds have a lot of unused capacity.
- + **Yap, Chuuk, and Pohnpei**: High “other/none” levels largely reflect unserviced outer islands.

KOSRAE



POHNPEI



POHNPEI UTILITIES CORPORATION

Project Name: Rehabilitation of the Sewer Treatment Plant and Pump Stations
Funded By: Asian Development Bank
FSM Government
Pohnpei State Government
Amount: \$5,931,688.31
Project Implementation Agency: Pohnpei Utilities Corporation
Project Executive Agency: FSM Dept. of Transportation Comm & Infrastructure
Contractor: CCEW Erihan, Australia

CHUUK



WELCOME TO YAP



YAP-1



YAP-2



YAP-3



Cultivation and Retention of Biomass

Micro-biological Wastewater Treatment



Suspended growth (Activated sludge):

- + Contact stabilization
- + CSTR / SBR
- + Plug-flow
- + Bardenpho
- + Etc.
-
- + MBR (w/ membrane)

Attached growth / biofilm



Fixed-bed:

- + Trickling filter
- + Bio-tower
- + Nonwovens
- + Swim-bed

Moving-bed:

- + MBBR
- Plastic rings
- Sponge cubes
- Gel beads