

# WATER AND WASTEWATER IN THE PACIFIC

Presenter

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- ▶ To inform those in attendance of the challenges faced by the water and wastewater utilities throughout the Pacific Islands.

GOAL OF PRESENTATION

Source Water Contamination

Aging infrastructure

Lack of O&M knowledge

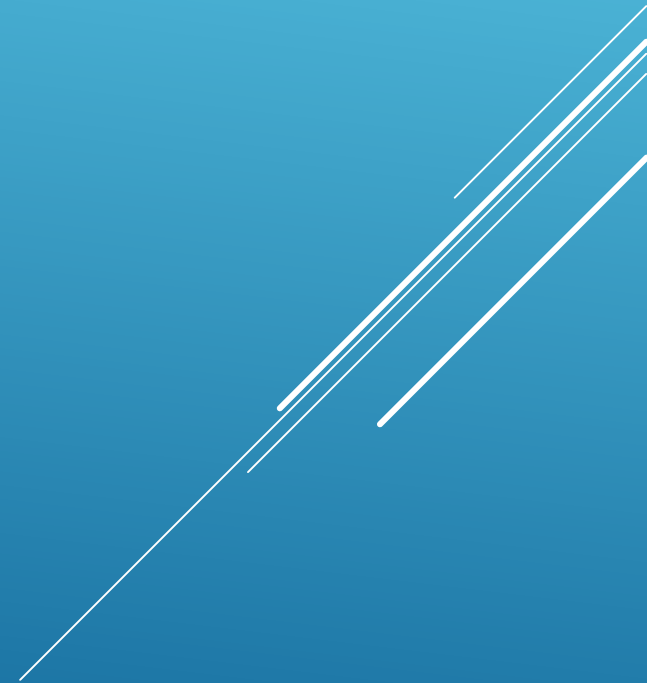
Lack of resources

Lack of training

Mother nature

Public Education

# CHALLENGES



- ▶ E Coli
- ▶ Leptospirosis
- ▶ Chlorides
- ▶ Calcium
- ▶ Nitrogen
- ▶ Phosphorus
- ▶ Potassium

# SOURCE WATER CONTAMINATION















6. 1. 1999



Stream	Municipality	Turbidity	E. coli (mpn/100 ml)
Soundau	Sokehs	1.39	480
Dolon	Sokehs	3.43	17,000
Sekere	Sokehs	6.20	> 24,000
Luhke	U/Nett	3.07	765
Meitik	Nett	1.58	3,000
Kahmar	Nett	0.98	745
Lowetik	Nett	1.04	2,300
Dauen Neu	Kolonia	1.52	58,500
Nintu	Kolonia	6.69	19,500

41 streams tested  
 28 streams not safe to swim in (68%)  
 Range 115 – 58,500 mpn/100 ml



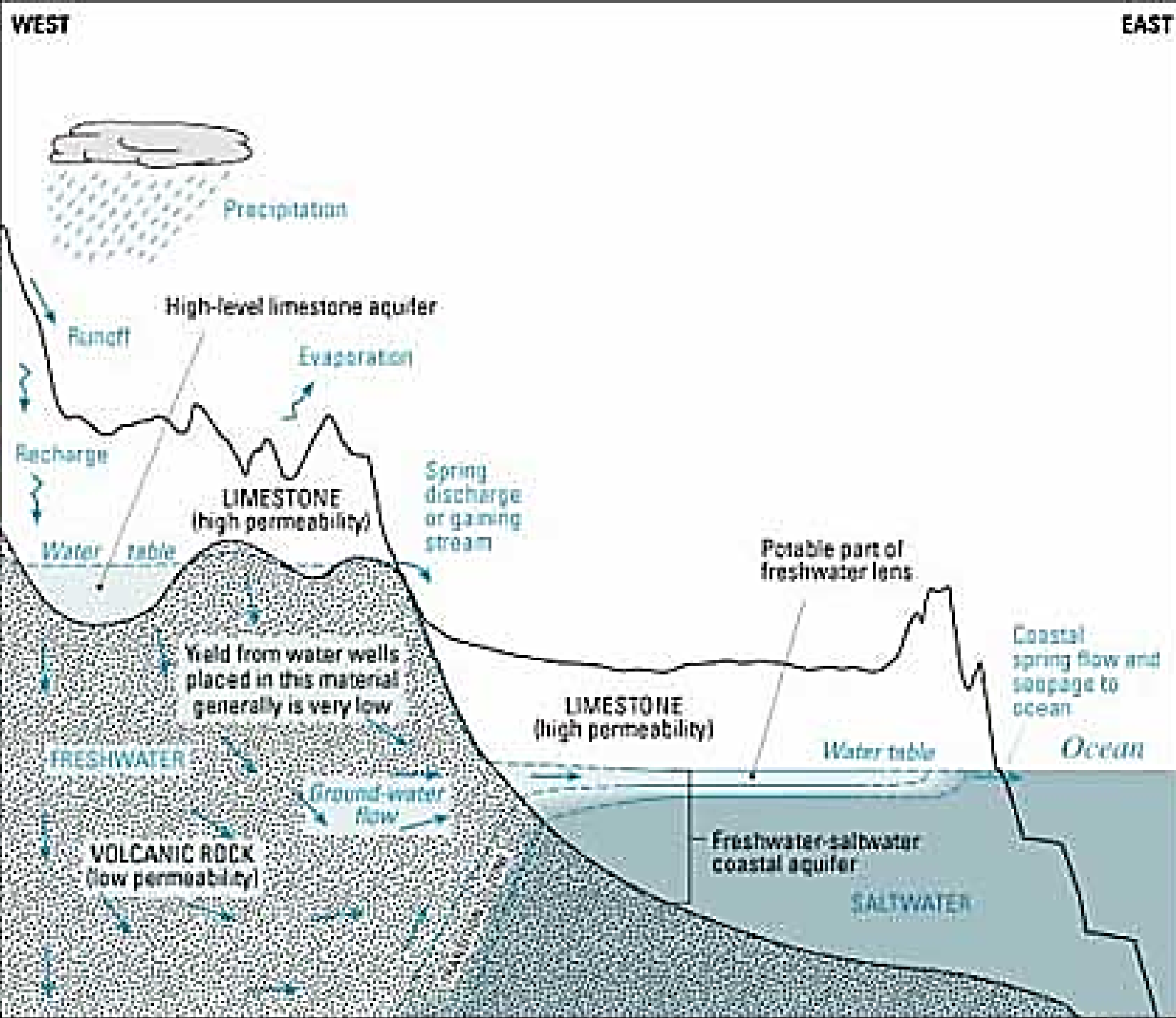










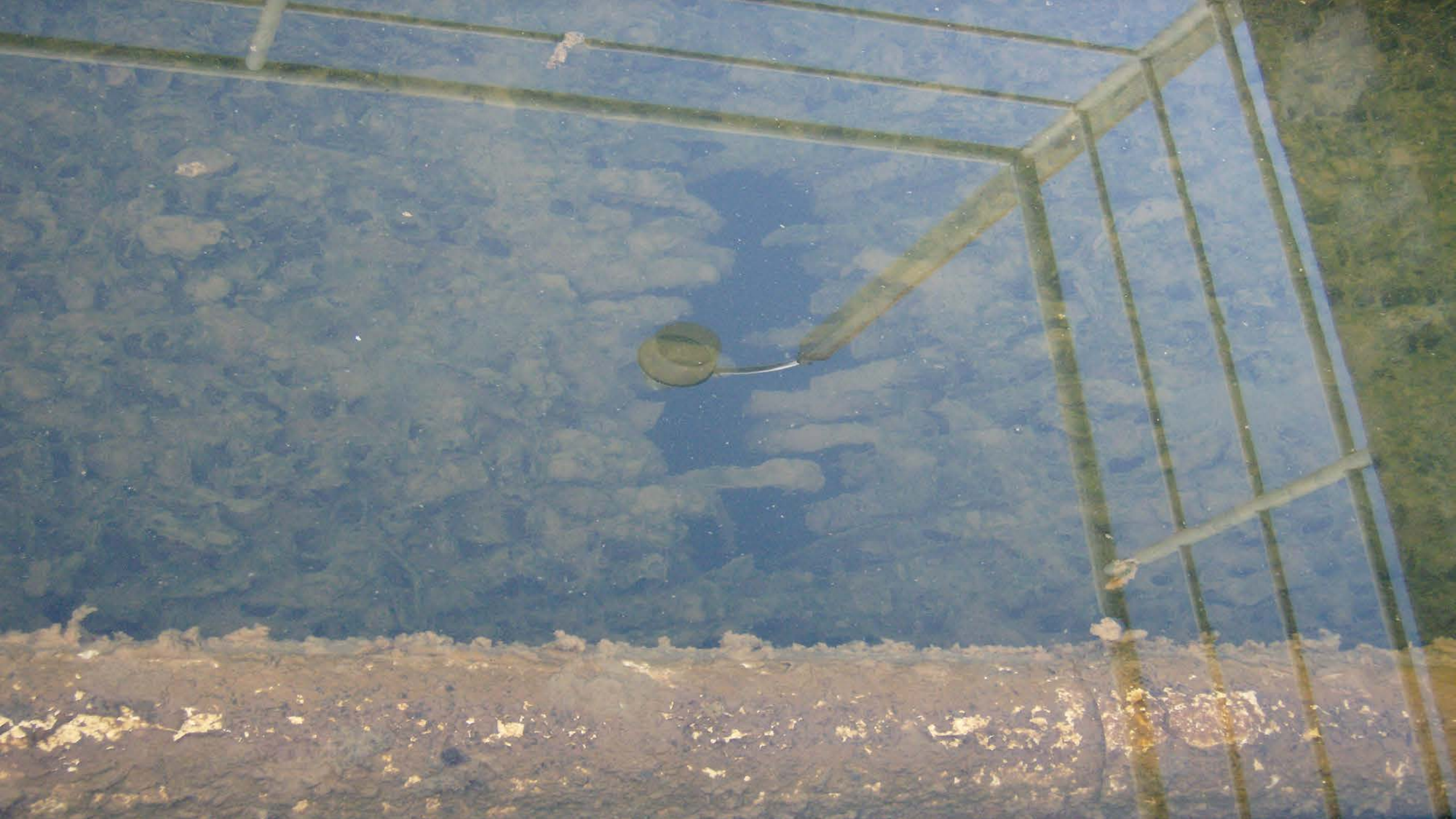




# AGING INFRASTRUCTURE









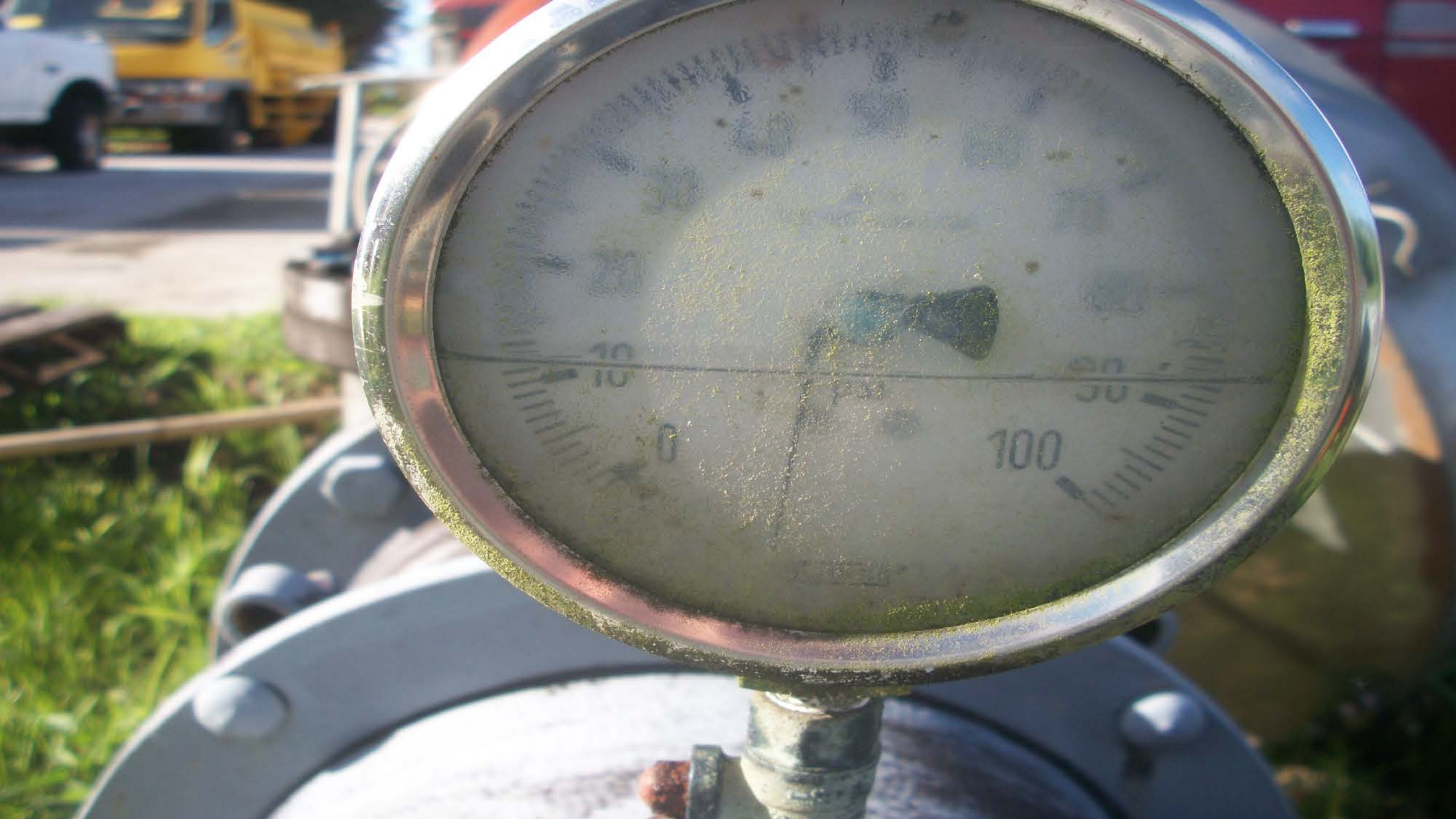








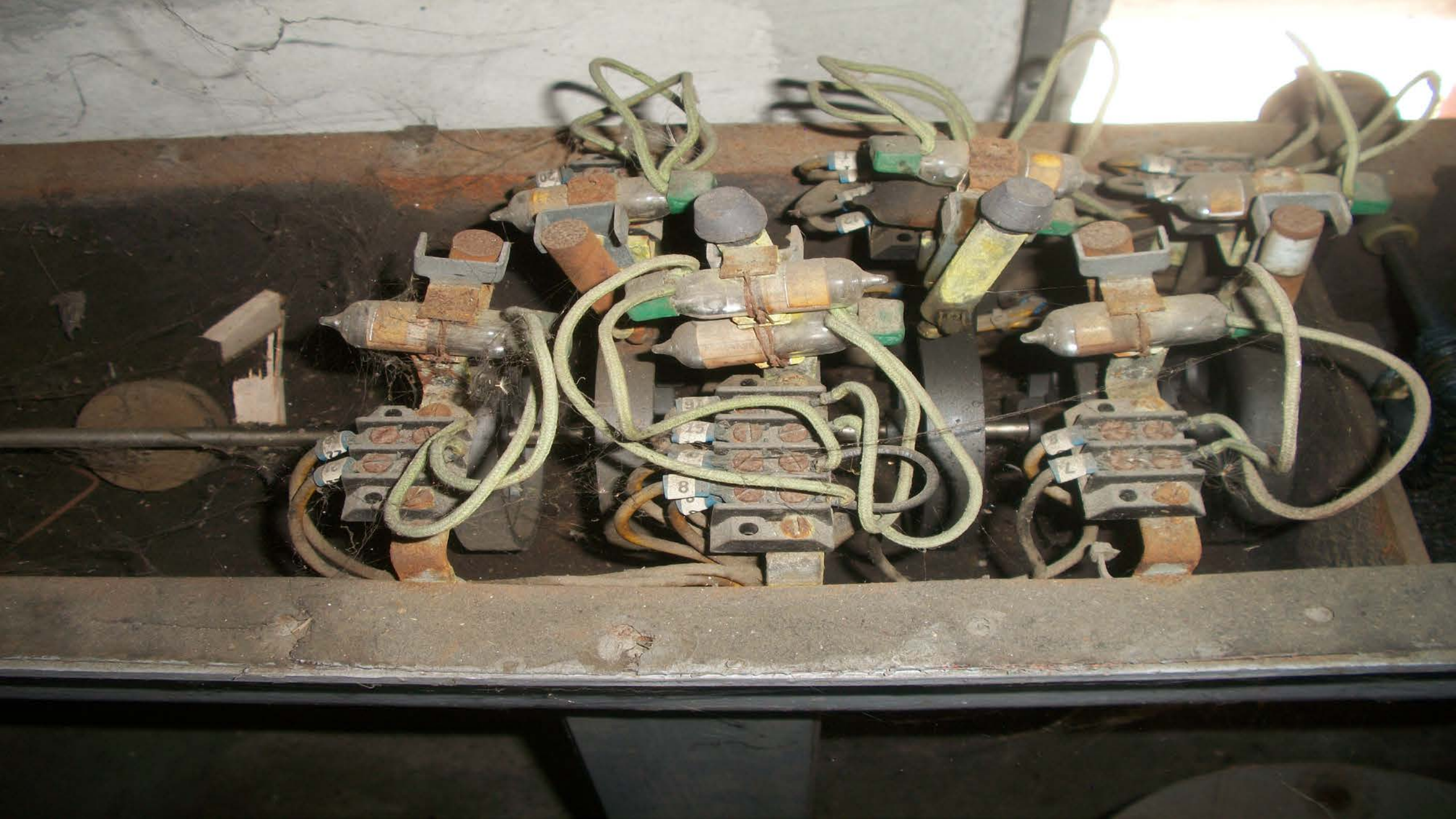




















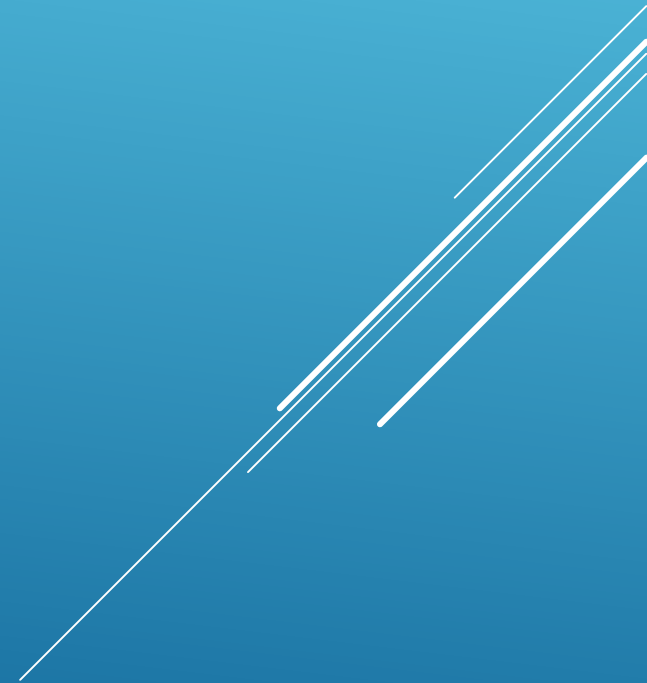








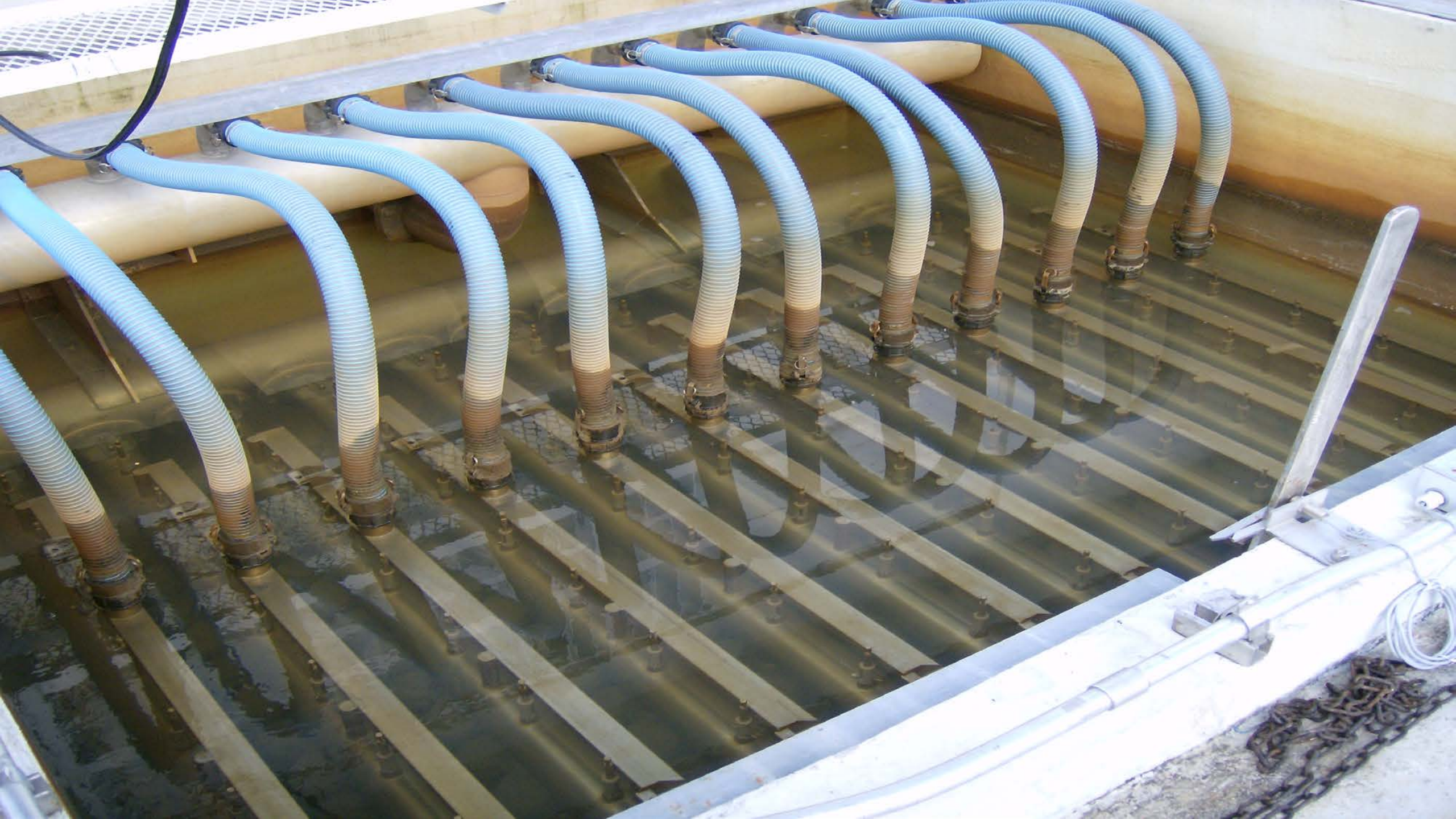
LACK OF O&M KNOWLEDGE



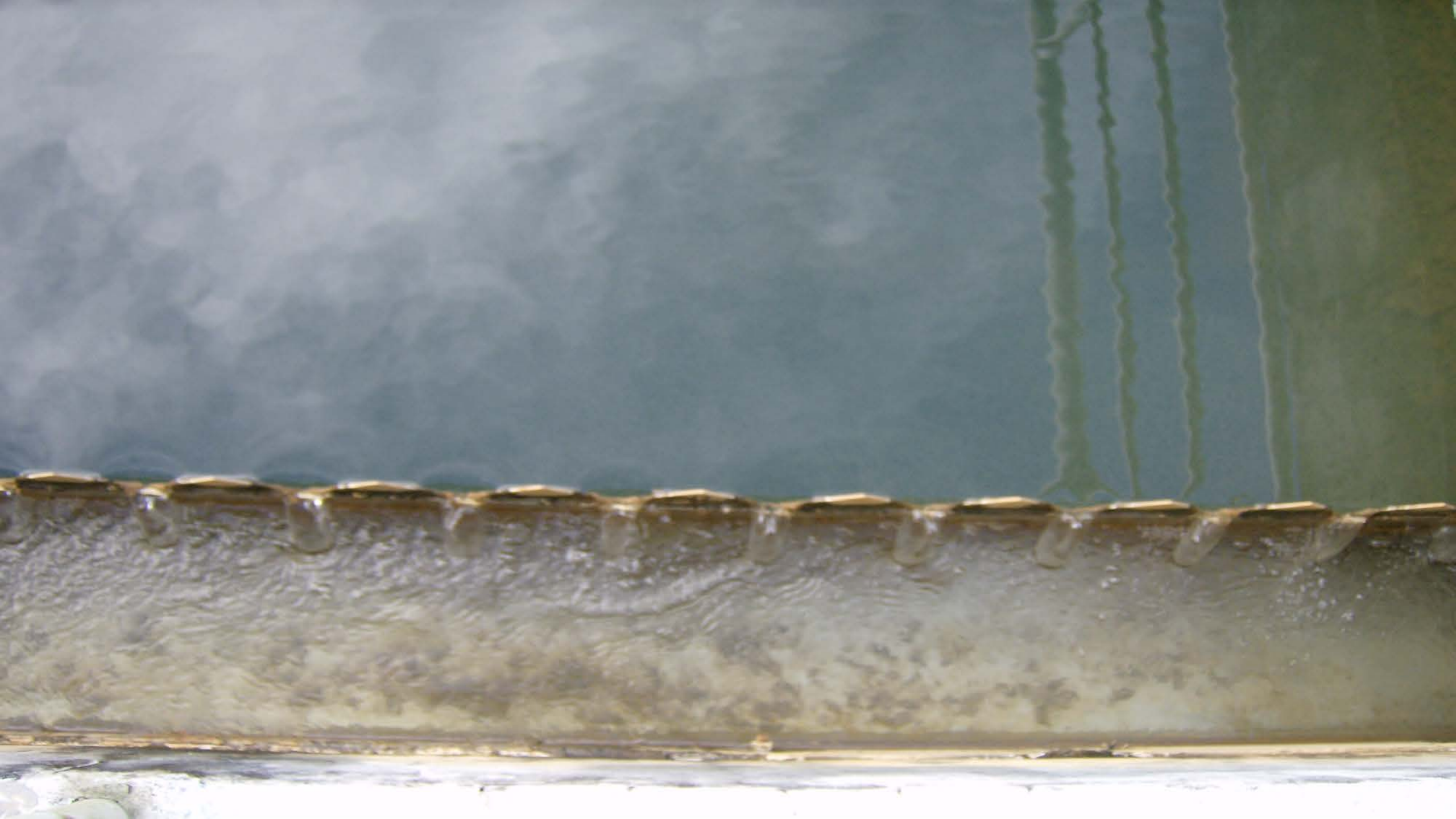


























LACK OF RESOURCES









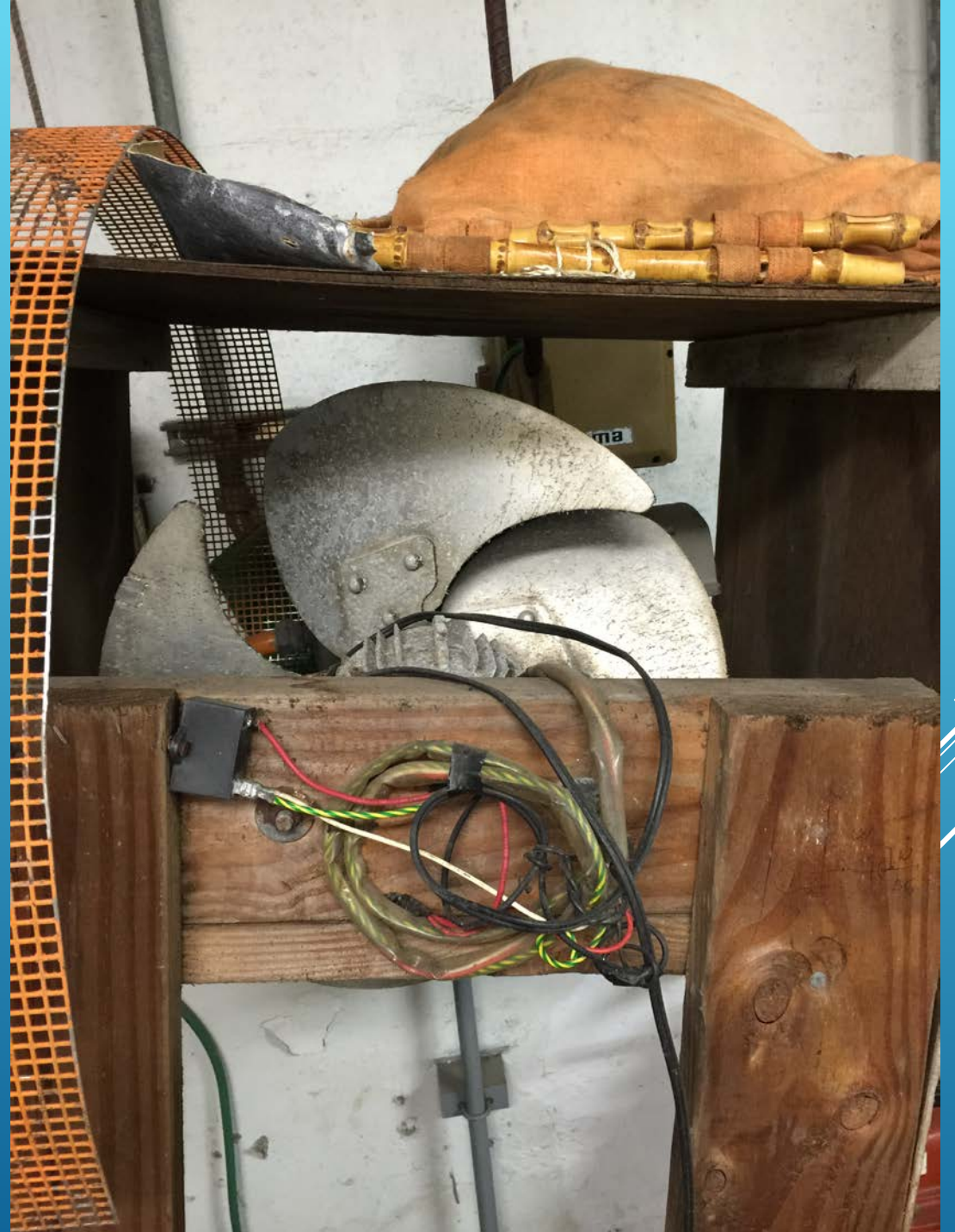
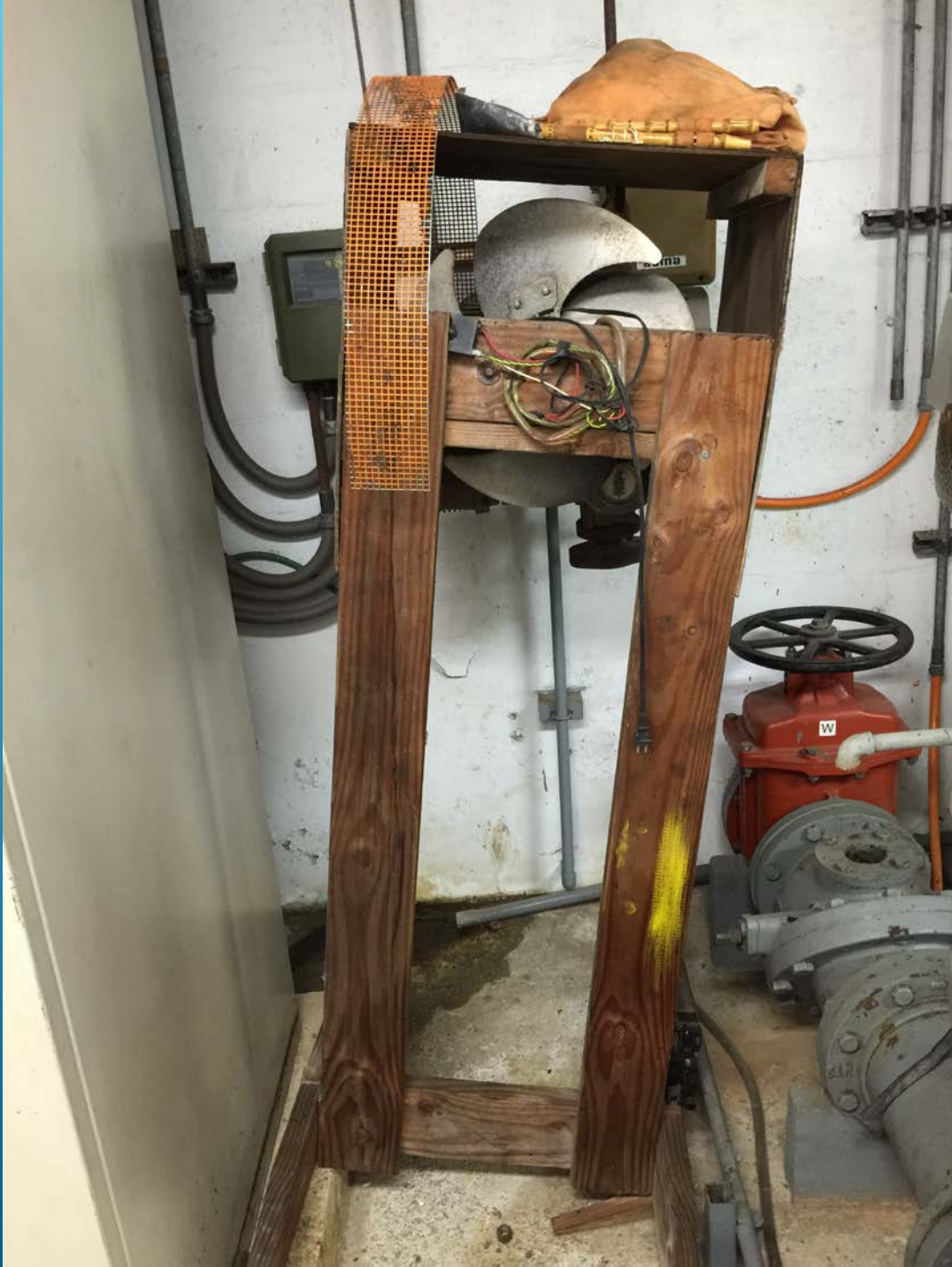
















TURBO CANTER























LACK OF OPERATOR TRAINING















**DANGER**  
**CHLORINE**  
**GAS**

**DO NOT ENTER**  
**AUTHORIZED**  
**PERSONNEL ONLY**







**CAUTION**

ESTE DISPOSITIVO EMITE RAYOS INFRAROJOS. EVITE MANTENERSE EN CONTACTO DIRECTO CON EL DISPOSITIVO POR UN PERÍODO DE TIEMPO PROLONGADO. EVITE MANTENERSE EN CONTACTO DIRECTO CON EL DISPOSITIVO POR UN PERÍODO DE TIEMPO PROLONGADO.

NOTICE: AVOID PROLONGED EXPOSURE TO INFRARED RADIATION. AVOID PROLONGED EXPOSURE TO INFRARED RADIATION. AVOID PROLONGED EXPOSURE TO INFRARED RADIATION.

**DANGER HAZARD**



UNAUTHORIZED







MOTHER NATURE



















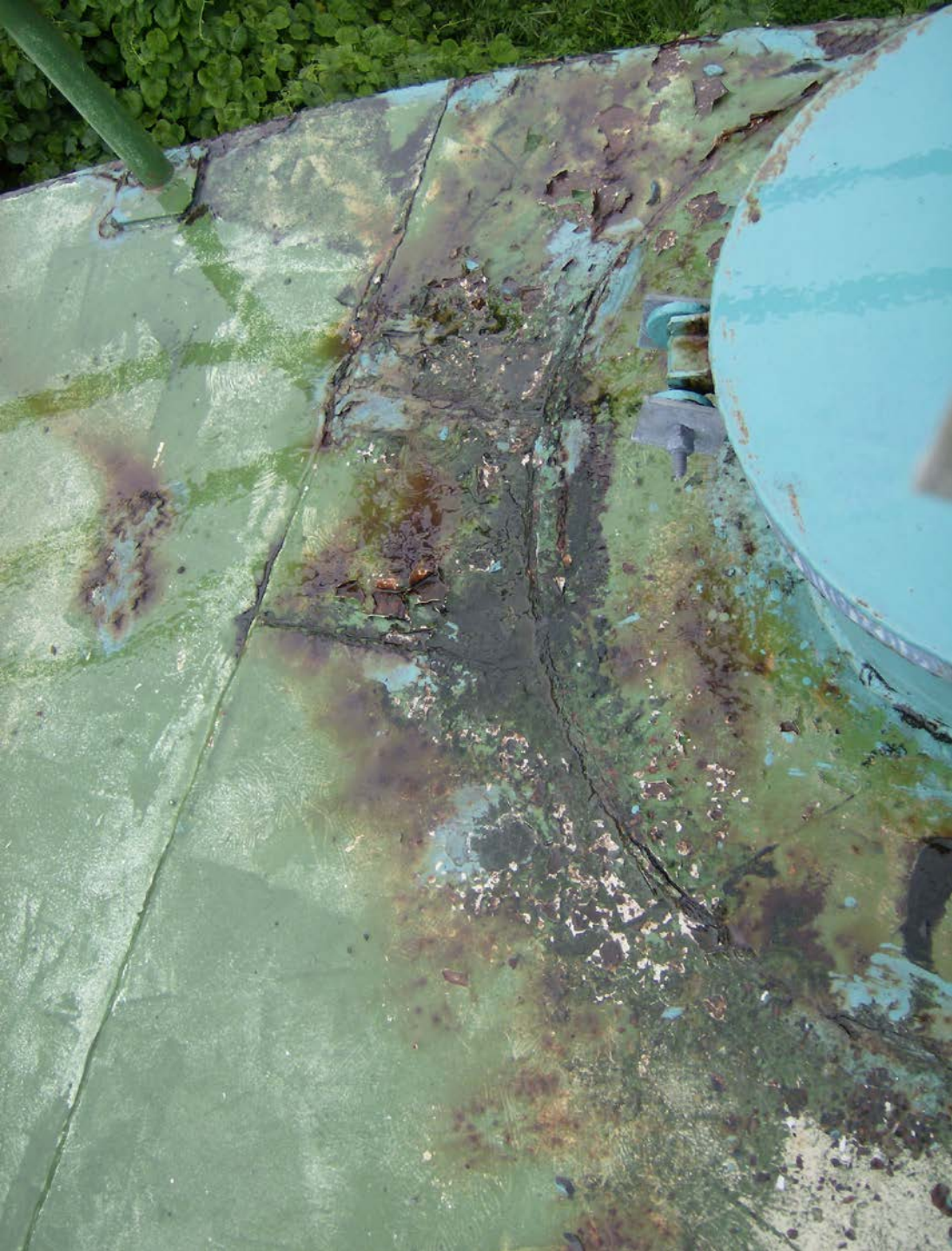






















# PUBLIC EDUCATION





## SOURCES OF WATER POLLUTION



Pigpen

*Pigpens must be more than 50 feet from the shoreline or anybody of water (Rivers, Streams, etc.). Diseases found in Pig waste can cause serious illnesses in human health such as:*

- *Leptospirosis*
- *Diarrheal Diseases*
- *Parasitic Infections & many more...*



Toilet facility

*Exposure to runoff from toilets can cause serious diseases such as:*

- |                          |   |
|--------------------------|---|
| <b>CHOLERA</b> —————     | <i>Bacteria found in human waste</i>                  |
| <b>HEPATITIS A</b> ————— | <i>Can cause permanent liver damage</i>               |
| <b>AMOEBAS</b> —————     | <i>Protozoan found in both human and animal waste</i> |



*Illegal waste disposal is prohibited by the Pohnpei State Government. Waste disposal on shorelines can cause problems to:*

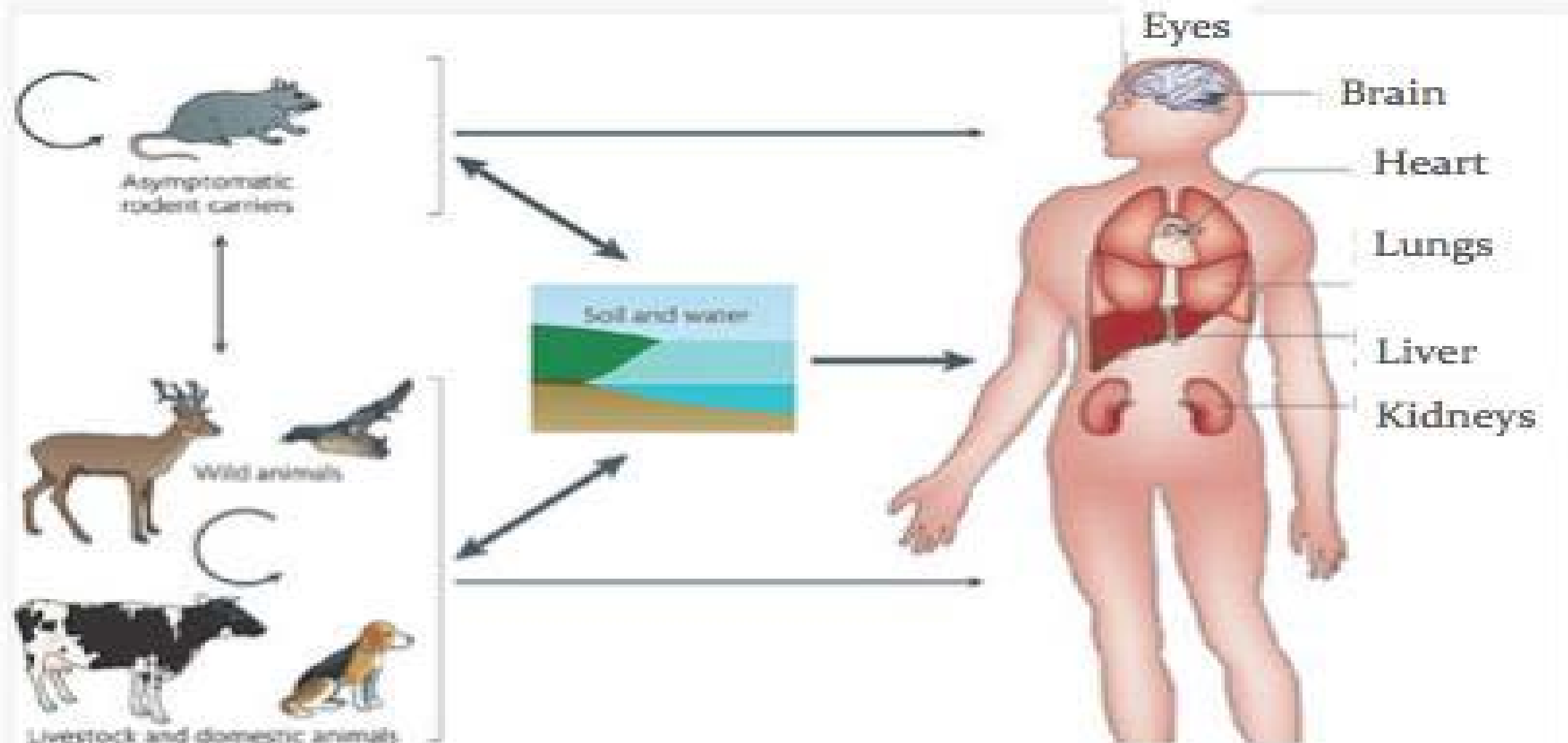
- *Mangroves*
- *Corals*
- *Fish*
- *Birds*
- *Recreational areas & etc.*

**WE ALL HAVE WORK TOGETHER IN PROTECTING AND PRESERVING OUR ENVIROMENT**



# Leptospirosis

Can Cause Severe Problems and Inflammation of:













# QUESTIONS

