

Premiers Award for Mining and Energy

- safety

SA Power Networks 2023

Supporting
information





2022-2023 Murray River Flood Event

May 2023



Flood response

Event Overview

“The most significant natural disaster in the state’s history.”

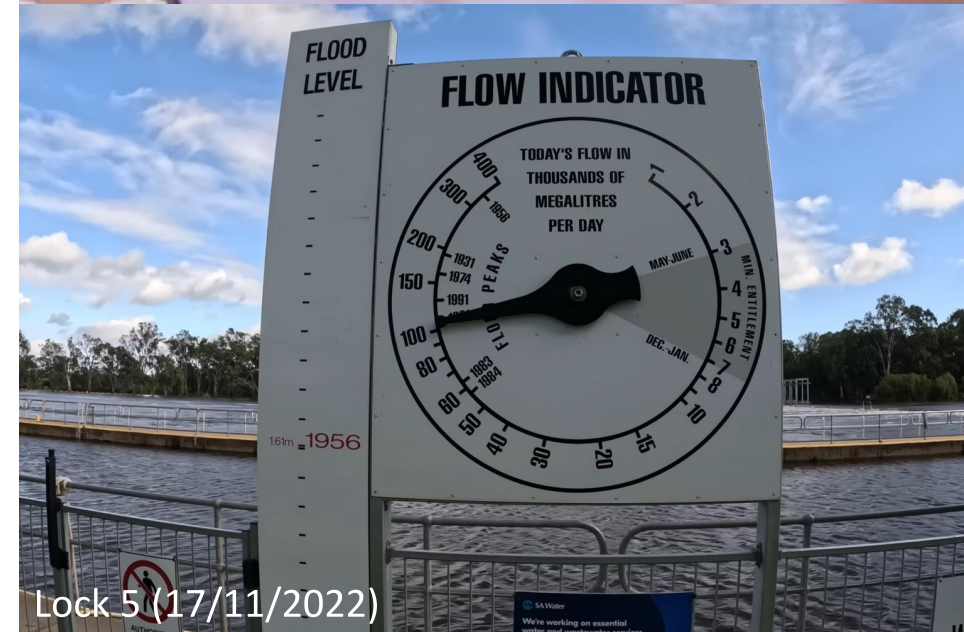
Joe Szakacs, Emergency Services Minister (Jan 2023)

Murray River flooding threshold: +5m AHD, approx. >100GL/day (occurred Nov 2022)

Peak flows: 186GL/day

Water heights resembled 233GL/day

(Adelaide metro consumes 200GL/year)



Event Overview

Peak flows: 186GL/day, +2.78m
(Water heights resembled 233GL/day)

Impact of flooding in SA

- 4000 properties inundated
- 120 roads closed
- 9/13 ferries closed
- 68 catastrophic levee failures

Impact on our electrical infrastructure

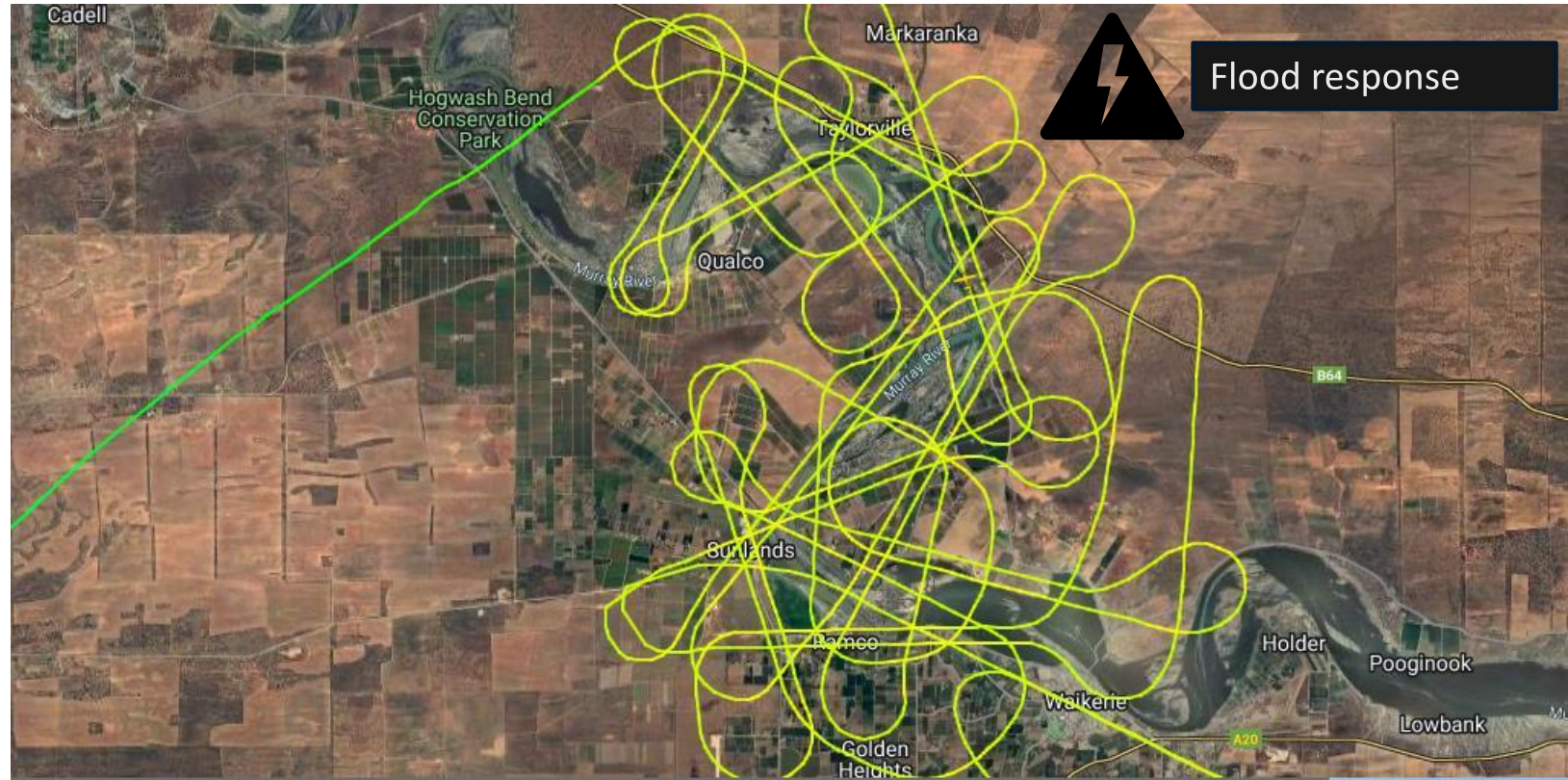
- 3300 homes, businesses, shacks, pumps and sheds disconnected
- 1600 transformer areas impacted
- 400km of powerlines operating over floodwater



Accessing via boats and manual measuring of clearances



LiDAR mapping – Flight playback



Flood response

Playback of flight OBW

GREAT CIRCLE DISTANCE N/A	FROM -	TO Adelaide (ADL)
AVERAGE FLIGHT TIME -	▶	
ACTUAL FLIGHT TIME 2:50	▶	
AVERAGE ARRIVAL DELAY -	▶	

TIME 04:43 UTC	CALIBRATED ALTITUDE 1,400 FT	GROUND SPEED 111 KTS	VERTICAL SPEED -448 FPM	TRACK 341°
	GPS ALTITUDE N/A	TRUE AIRSPEED N/A	INDICATED AIRSPEED N/A	SQUAWK 1200

flightradar24

© Will PH | Jetphotos

AIRCRAFT
Cessna 182Q Skylark

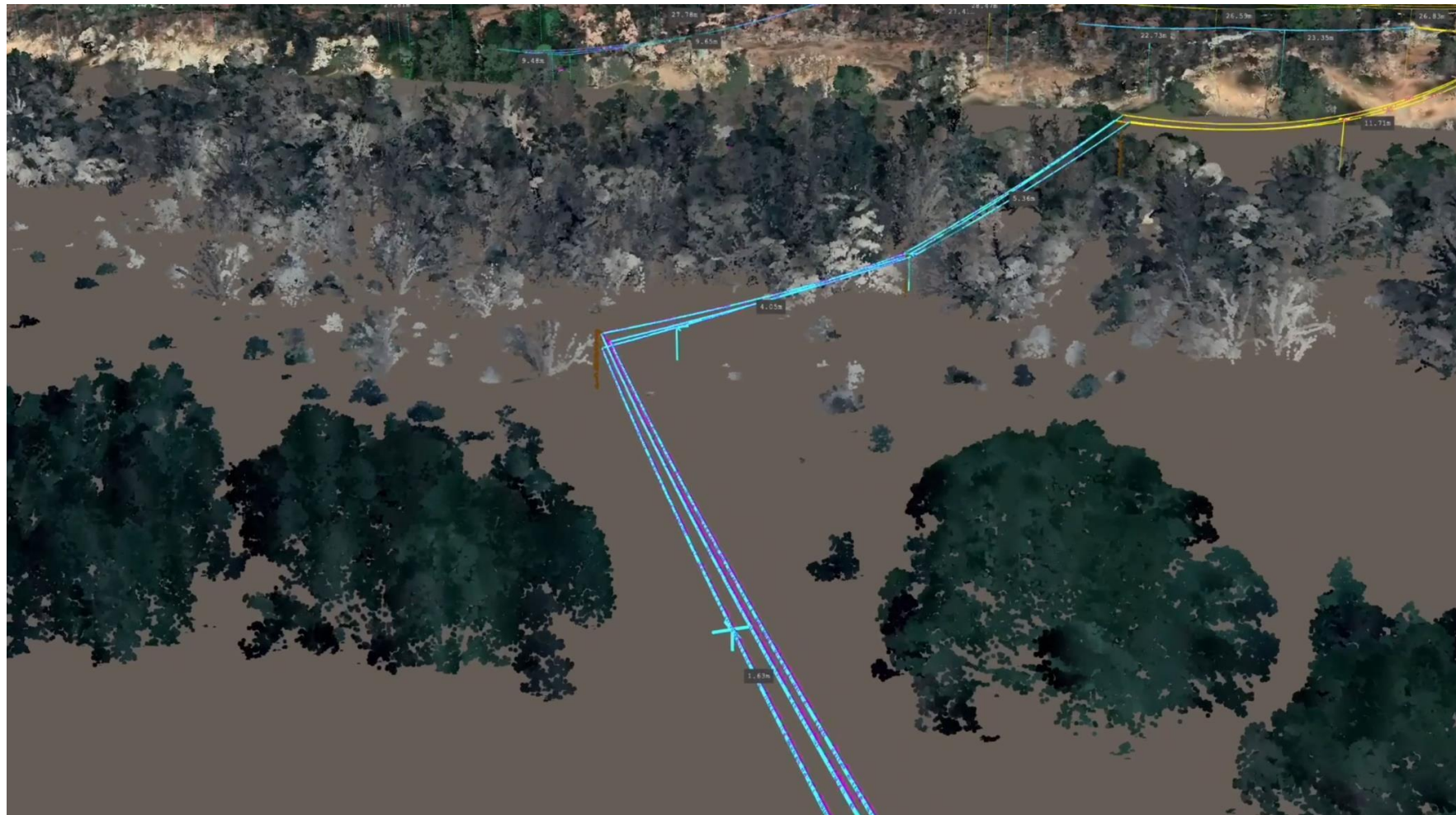
REGISTRATION
VH-OBW

SERIAL NUMBER (MSN)
182-66581

Digital twin/3D model visualisation



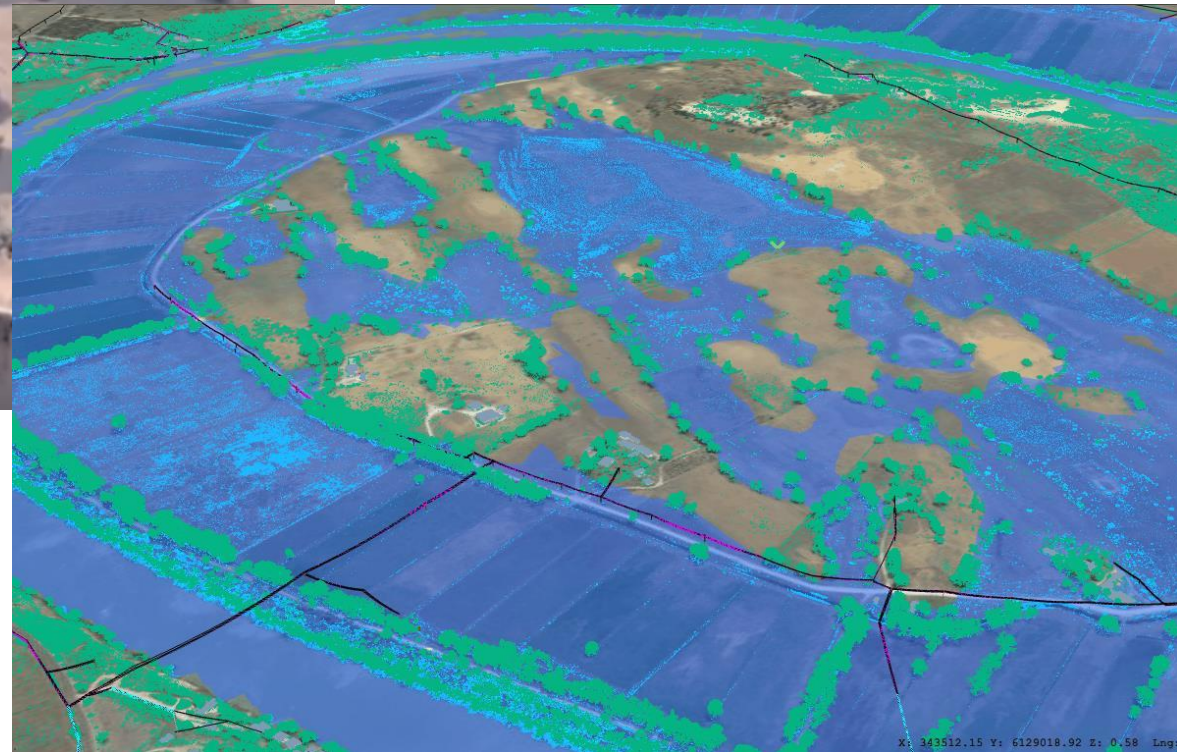
Flood response



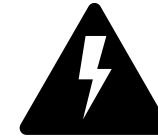
Caloote aerial image vs model visualisation



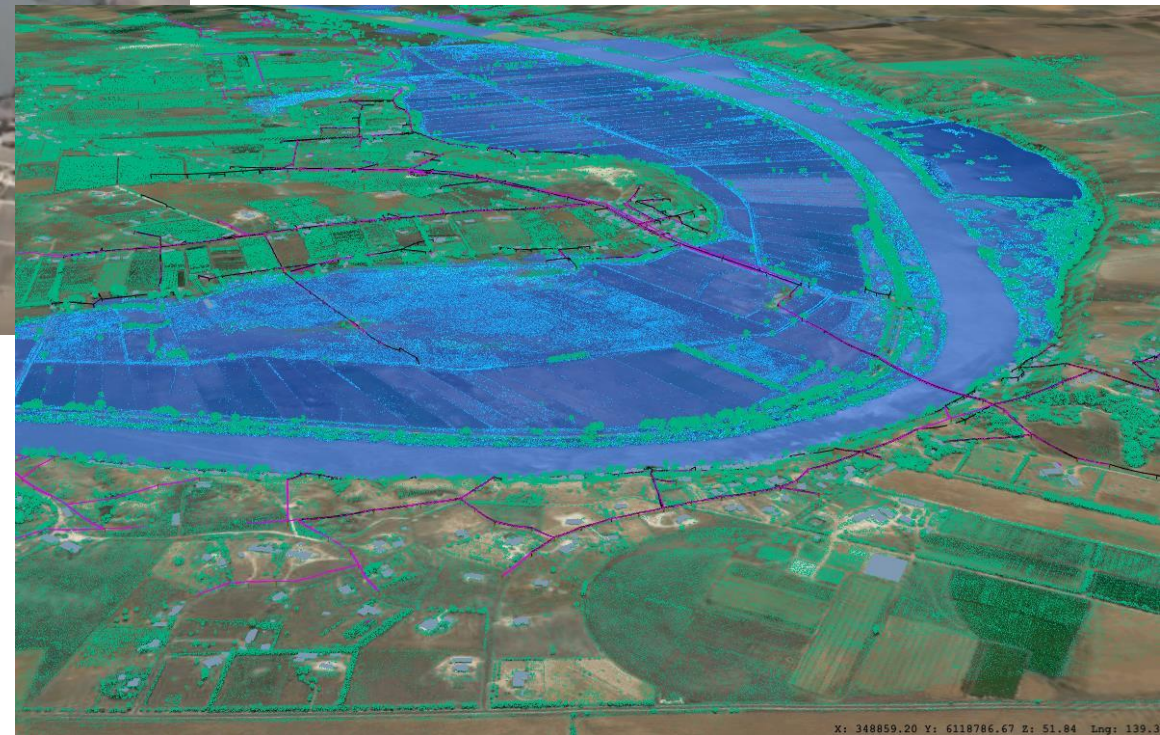
Flood response



Mypolonga aerial footage vs model visualisation



Flood response



Platform

Data

Processing

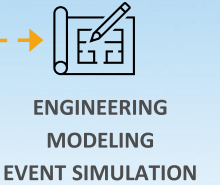
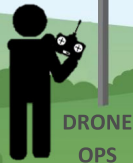
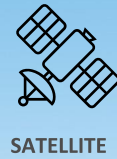
Value

“Data is like garbage. You’d better know what you are going to do with it before you collect it.”

– Mark Twain

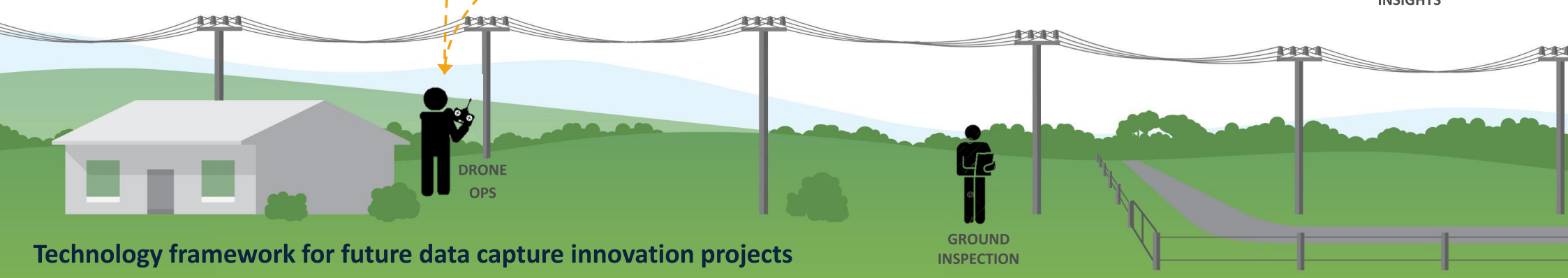
“With data collection, ‘the sooner the better’ is always the best answer.”

– Marissa Mayer co-founder of Lumi Labs, former Yahoo! president and CEO



Technology framework for future data capture innovation projects

GROUND INSPECTION





sapowernetworks.com.au