

# ALL RESPECT







**All sorts of things  
cause fires**



**It's about  
stopping  
the fire  
spreading**



**Where is the  
fire and  
what  
is it  
threatening?**



# Multiple ways of fighting the fire



**Where do you get  
water?**



AND SOMETIMES YOU CAN'T DO ANYTHING, IT'S ALL TOO INTENSE





**And it can be hard work over  
a number of days.**

**And different approaches  
are needed**



**OK ... What has this got to do with GIS???**

# **SMALL FIRES < 100ha**

Generally a local brigade  
or several local brigades + National Parks

Local Control

Coordinated on the ground

Sort of hierarchical but a bit organic

Limited information - memory, local  
knowledge and paper maps

# **BIG FIRES > 100ha**

DFES / National Parks

Many brigades from different locations

Centralised Control

Centralised control point

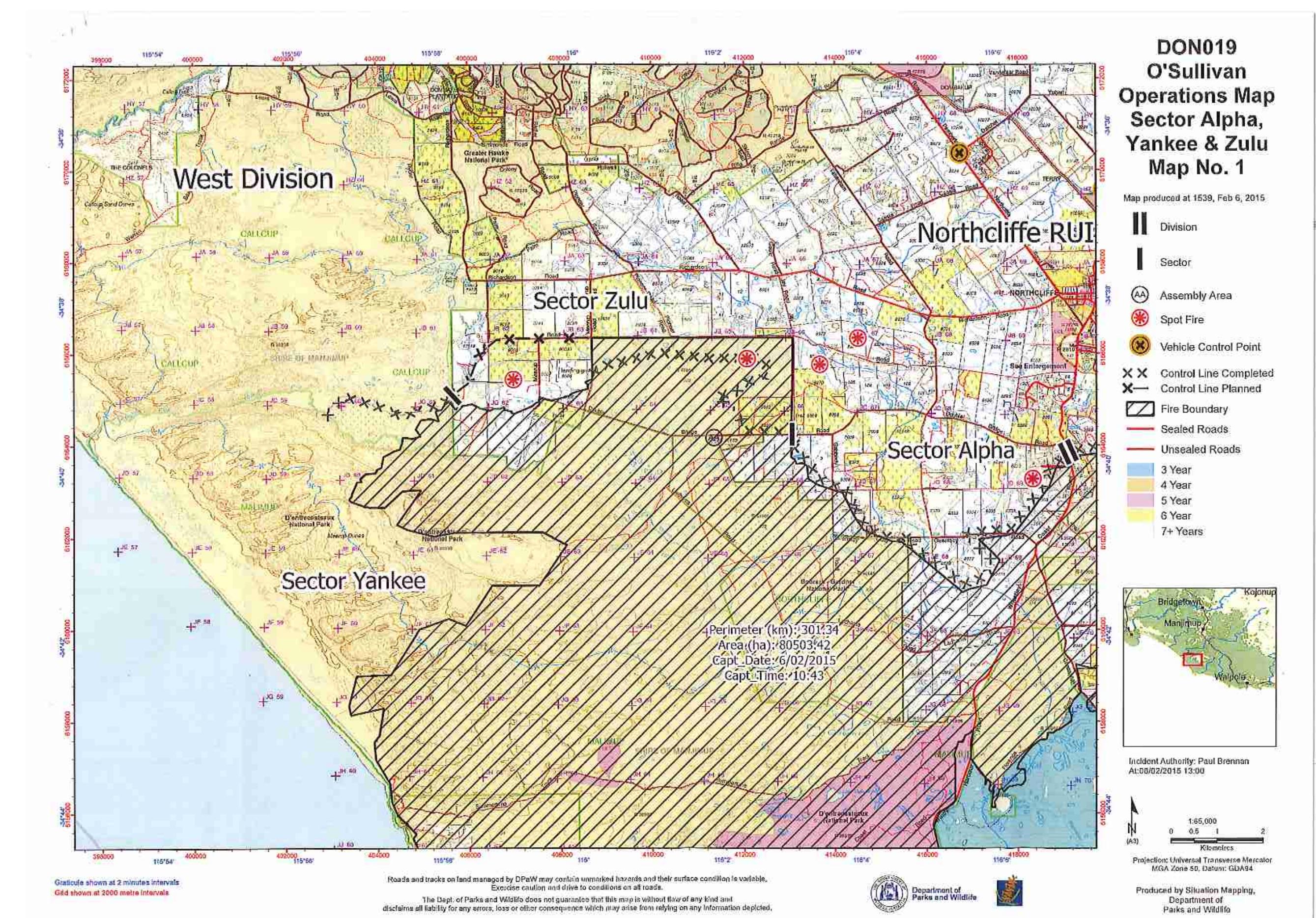
Very hierarchical and military control

Top levels have large amounts of  
information

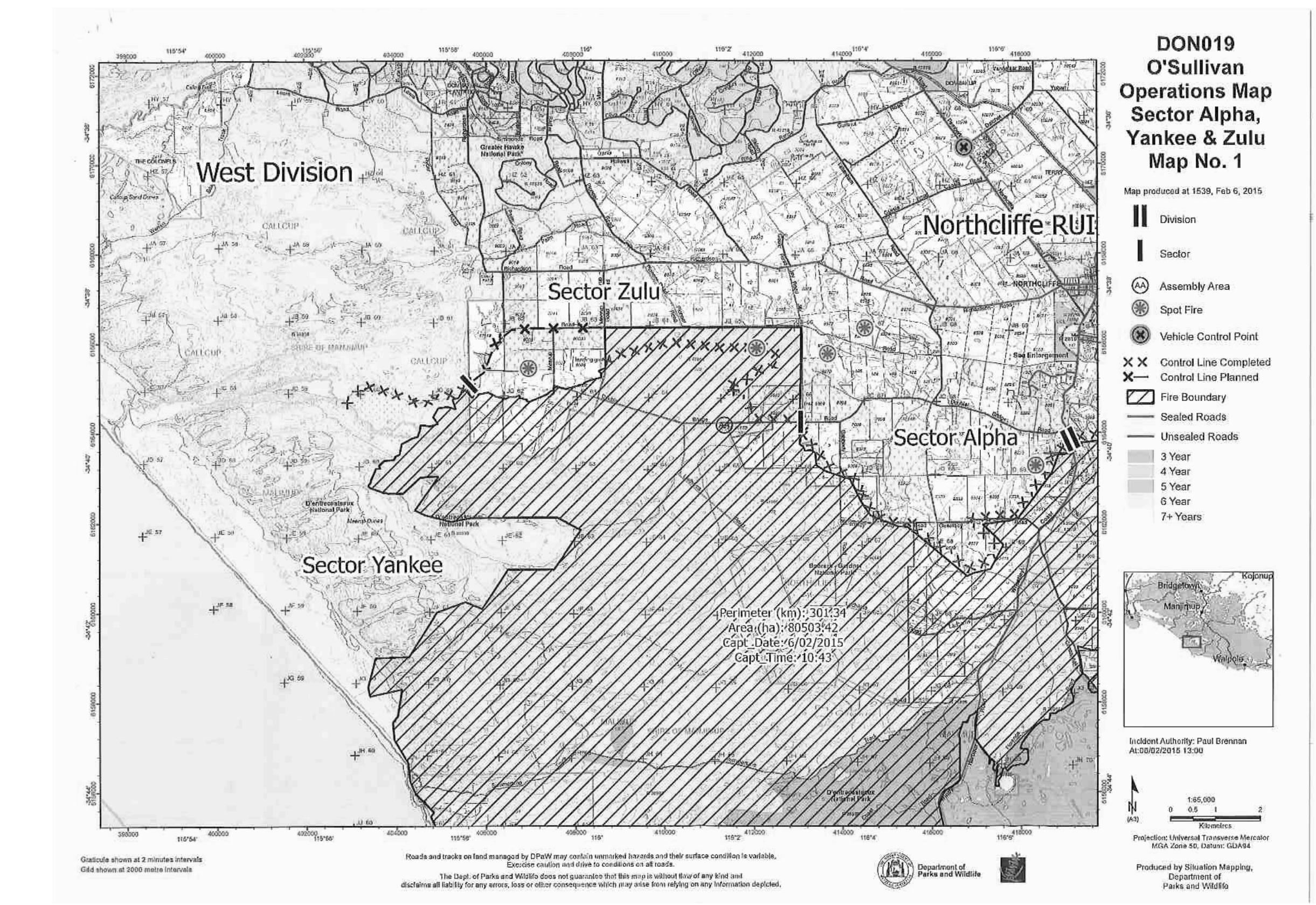
What usually filters down is a plan  
indicating where we have to work

Very little local knowledge

# TYPICAL PAPER MAP USED WHEN FIGHTING LARGE FIRES



# SOMETIMES IT ONLY COMES IN B&W



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This is where GIS can  
bring significant improvement

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# WHERE GIS COMES IN - answering questions

Where are the tracks, and is it safe to go there?

Has the status of the tracks changed?

Where is the water?

Where are the gates?

What are the landscape characteristics?

Where are the property boundaries?

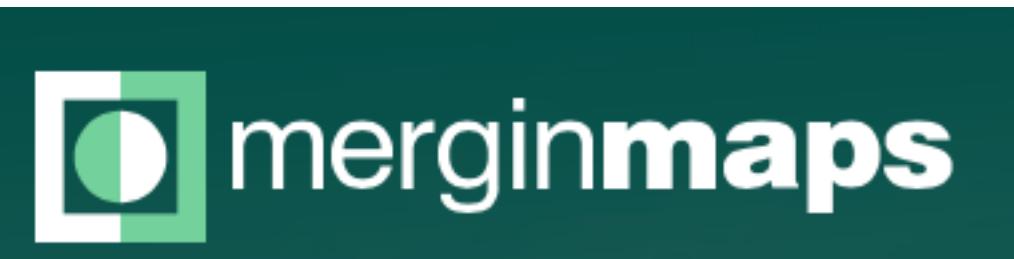
Where have we been, where are the other trucks?

**Where is the fire front?**

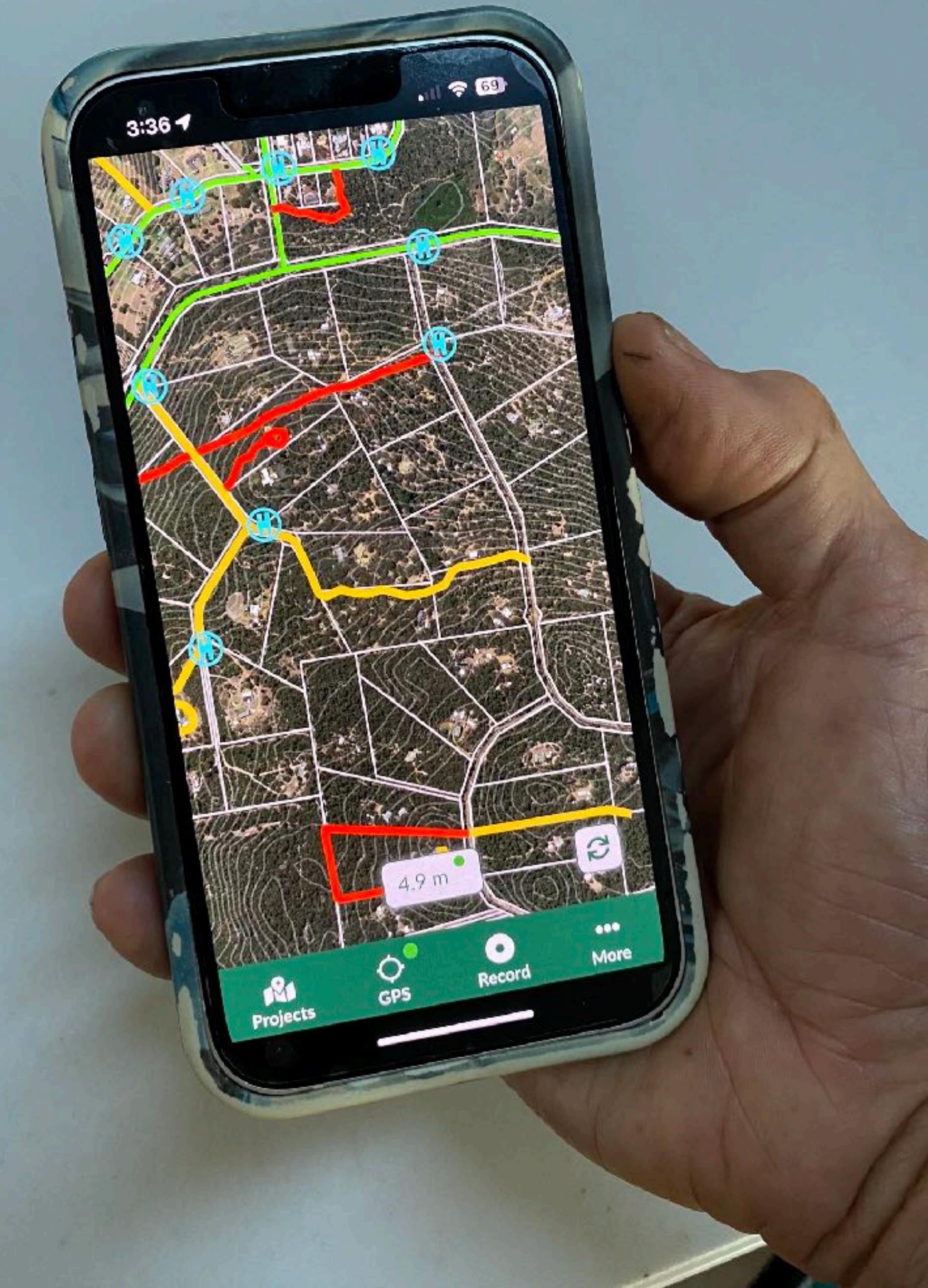
How do we access the information?

How do we do live updates?

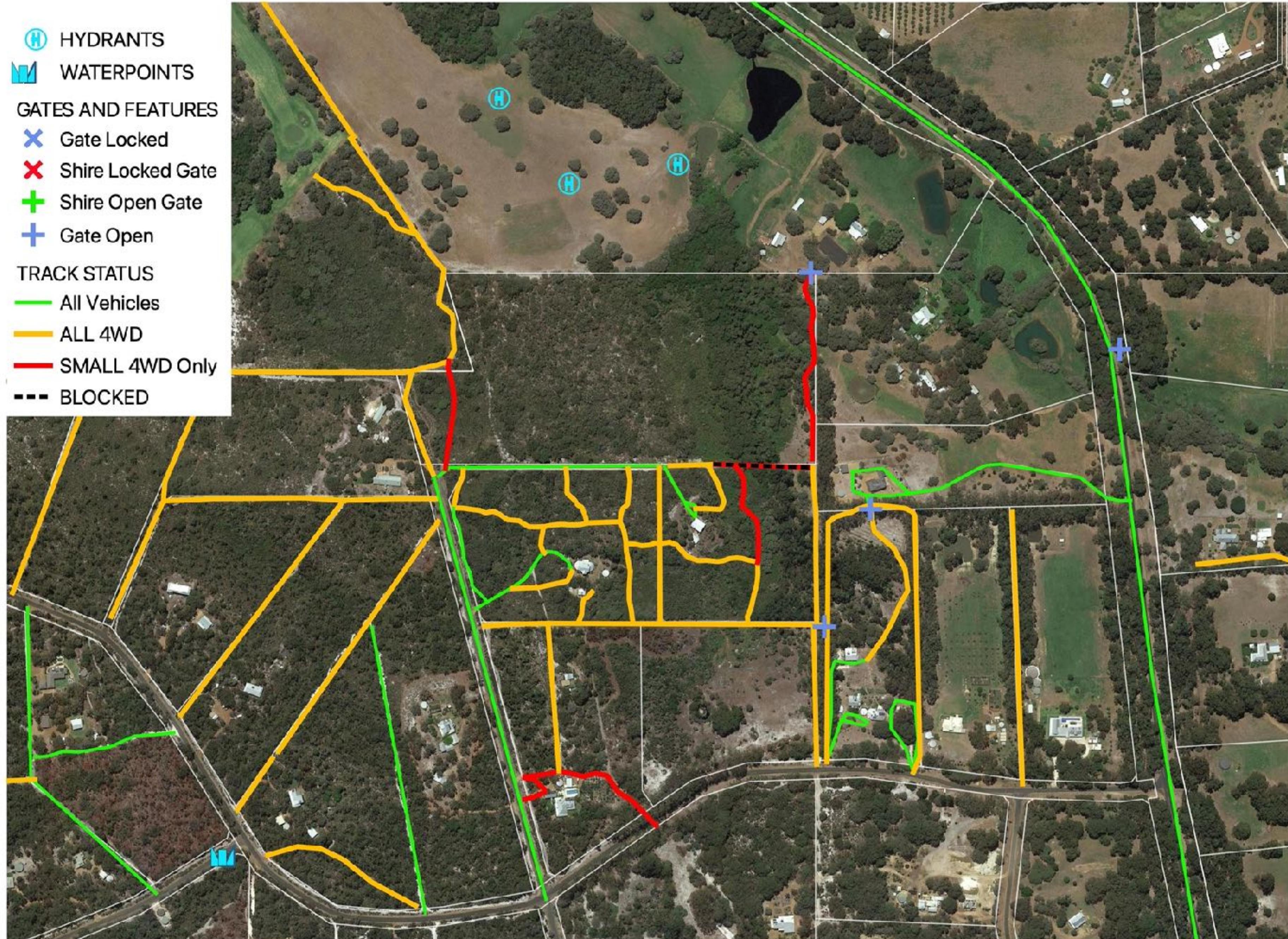
2024 QGIS +

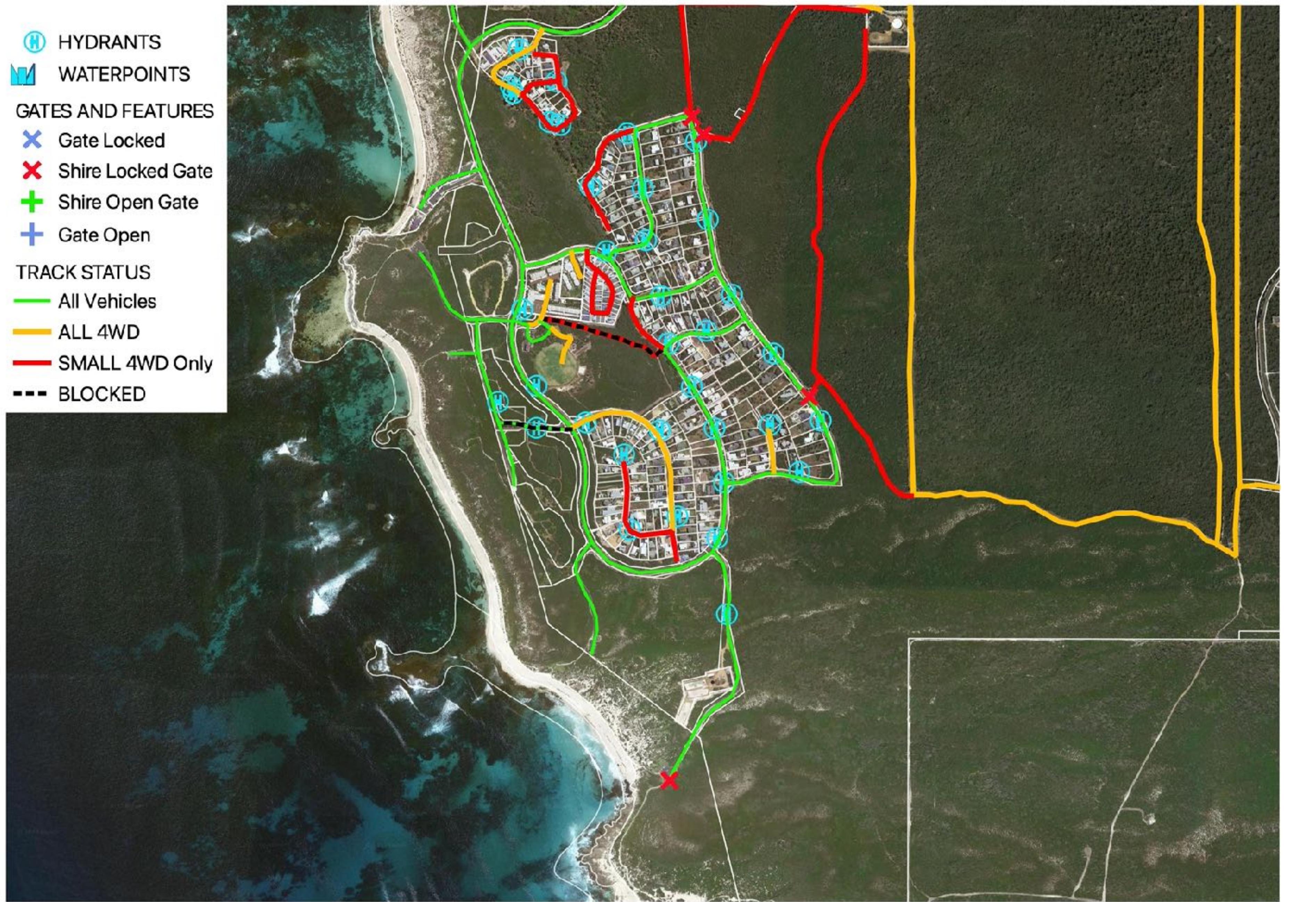


Simple initiative-  
but we aren't  
GIS gurus

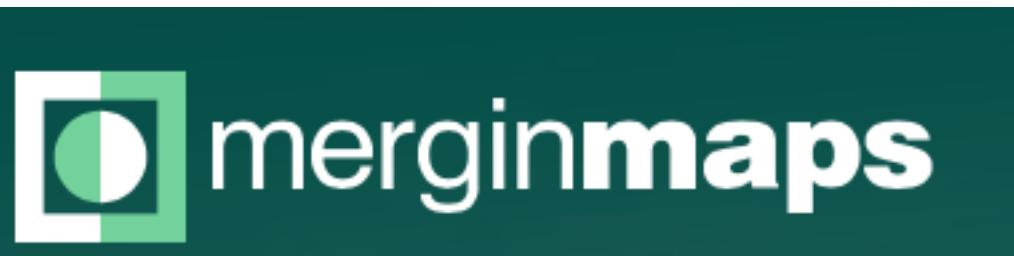


- (H) HYDRANTS
  - (W) WATERPOINTS
- GATES AND FEATURES
- Gate Locked
  - Shire Locked Gate
  - Shire Open Gate
  - Gate Open
- TRACK STATUS
- All Vehicles
  - ALL 4WD
  - SMALL 4WD Only
  - BLOCKED





# 2024 QGIS +



## POSITIVES

HUGE AMOUT OF INFORMATION READILY AVAILABLE

CAN BE UPDATED IN REAL TIME

GPS

VEHICLE TRACKING

IT'S FREE

FEEDBACK FROM THE FIELD

USEFUL FOR MANY THINGS



# 2024 GIS + merginmaps

## CHALLENGES

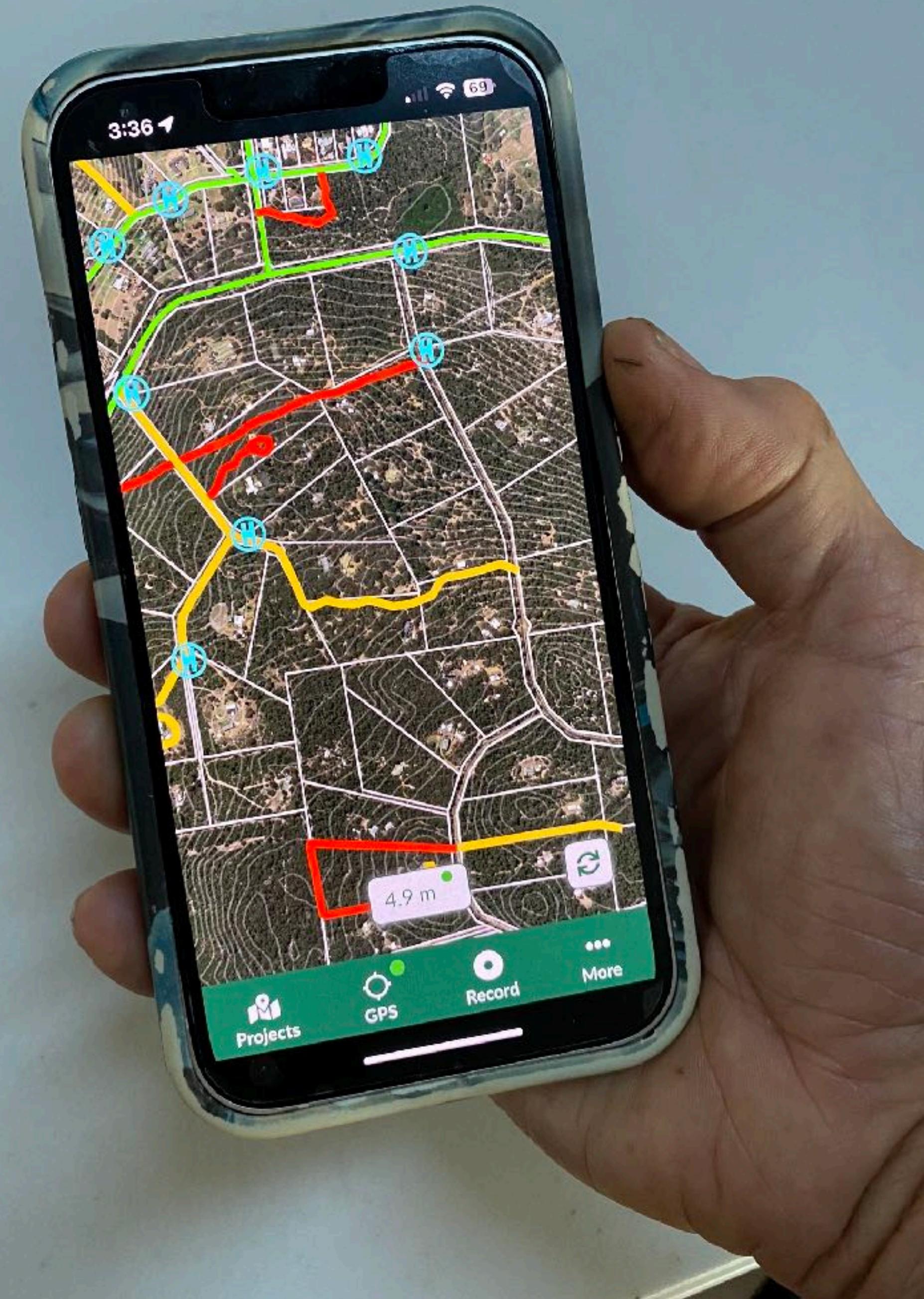
NEEDS DEDICATED DATA PERSON TO DRIVE THE BACK END

NEEDS REFINEMENT e.g. scaling line work

SOME FIREYS DON'T "GET" OR TRUST IT - preference  
for memory, google or paper maps

LIMITED BY MOBILE RECEPTION FOR LIVE UPDATING

DFES WILL EVENTUALLY DO THIS - DO WE WAIT?



# 2024 GIS +

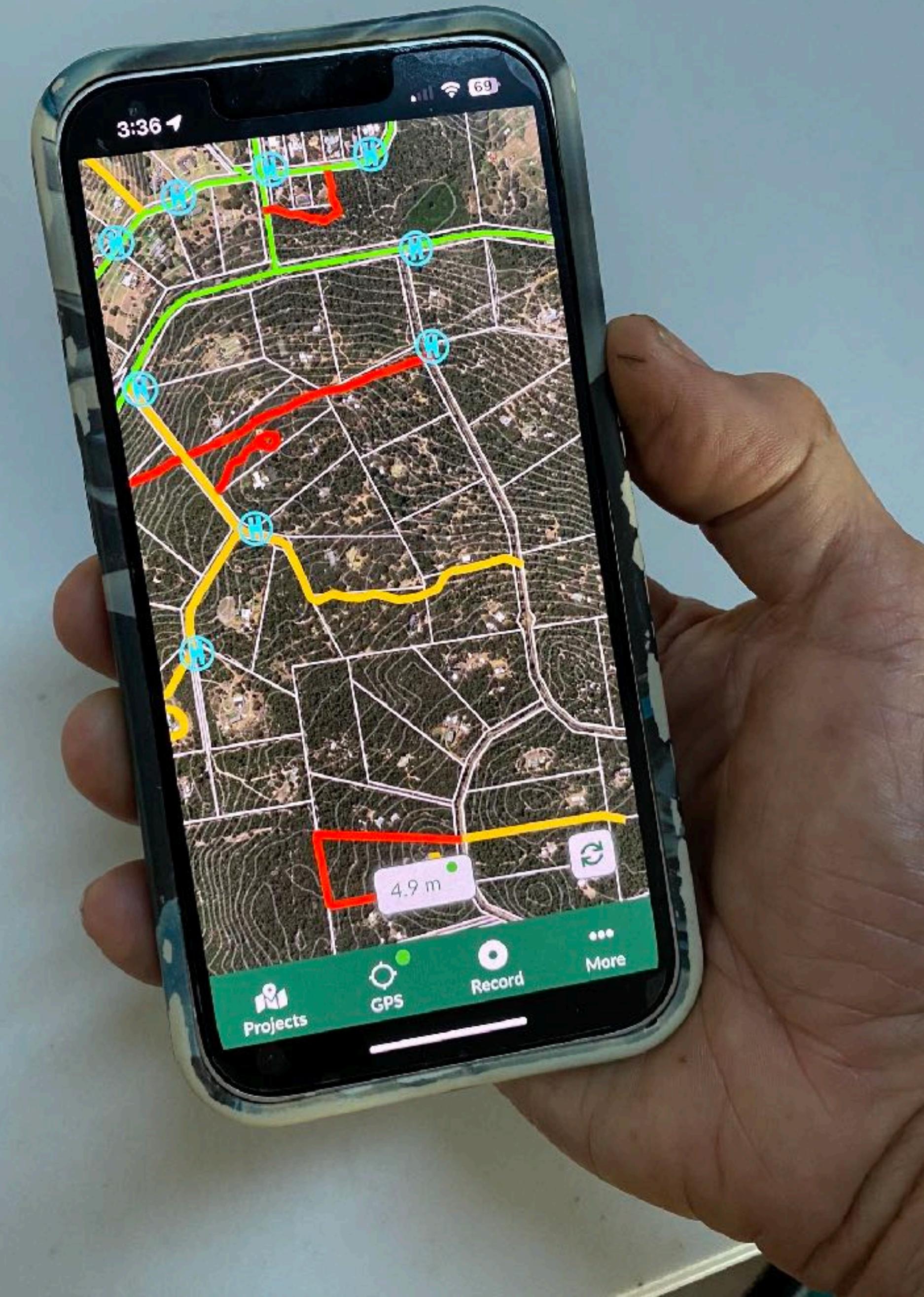


## OPPORTUNITIES - BIG PICTURE

PHOTOS FROM LOCATIONS

ASSET REGISTER

MULTIPLE VEHICLE TRACKING



# 2024 GIS +



## **IMMEDIATE NEEDS - Simple technical advice, we are not GIS people**

How to scale lines as you zoom?

On whose computer should we store the QGIS base mapping?

Can multiple people access the base mapping?

How to link multiple devices thru Mergin Maps to the base map?

How to store info locally on devices in case of bad coverage?

How to use sync effectively to capture field data live?

How to access and show other data sets - SLIP, satellite fire info, Bushfire Io,

DFES, Western Power etc. ?

# QUESTIONS

