

Identifying Water Sources for Aerial Firefighting

A collaboration between NAFC, AFAC, Geoscience Australia, and FrontierSI

Supported by NHRA

Presented by Dr Caitlin Adams

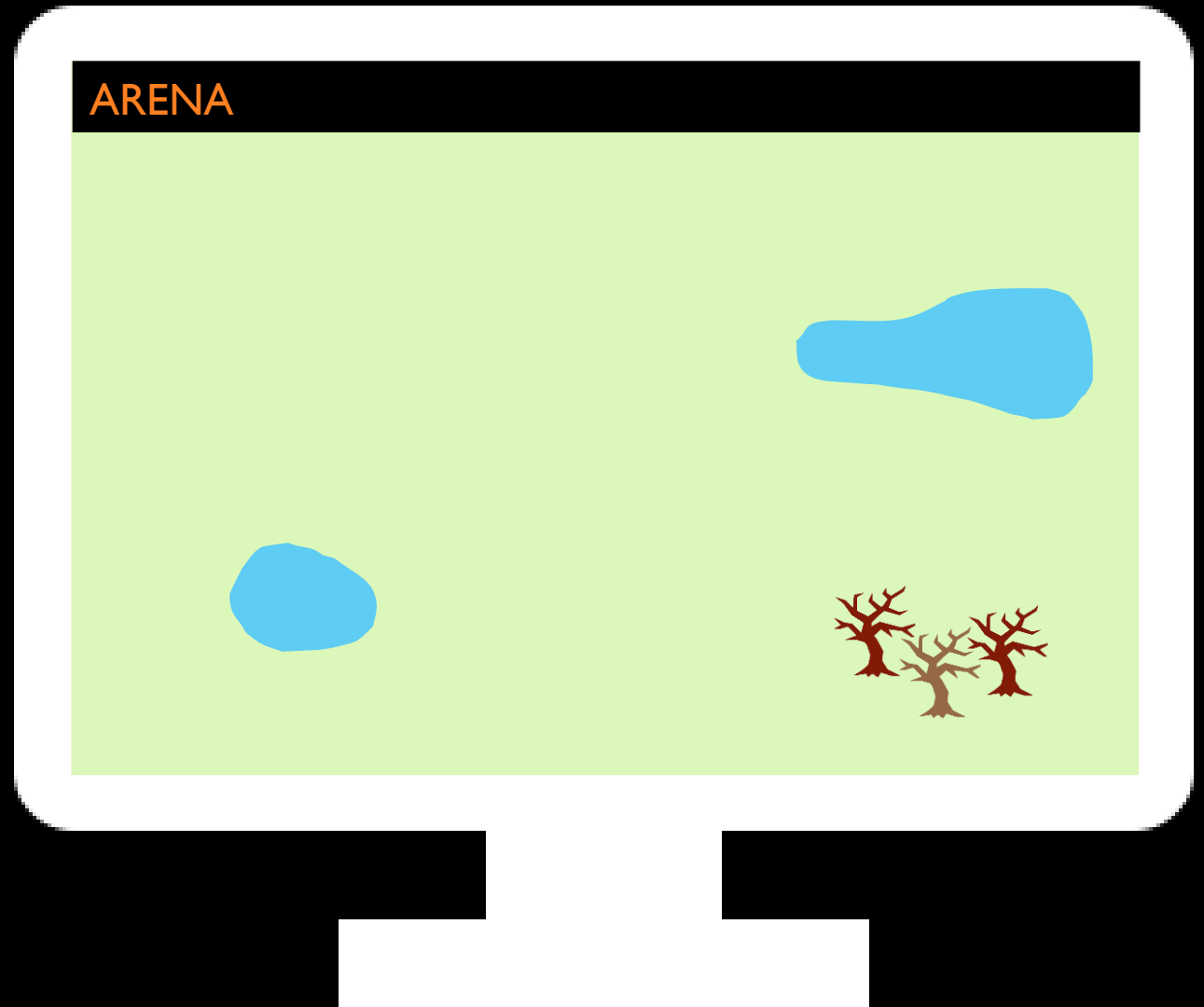


Australian Government
Geoscience Australia



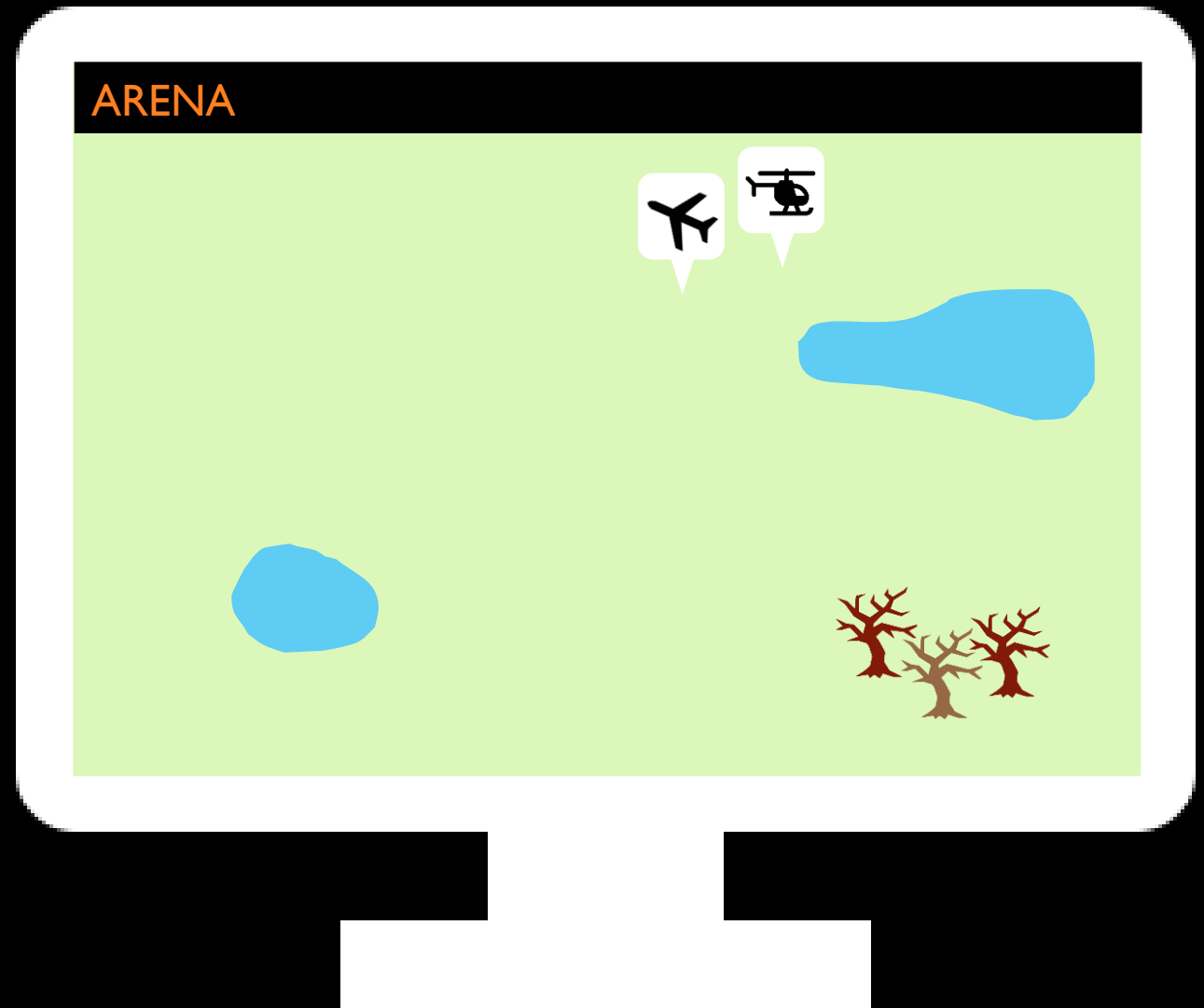
Pre-planning

- Need to station aircraft



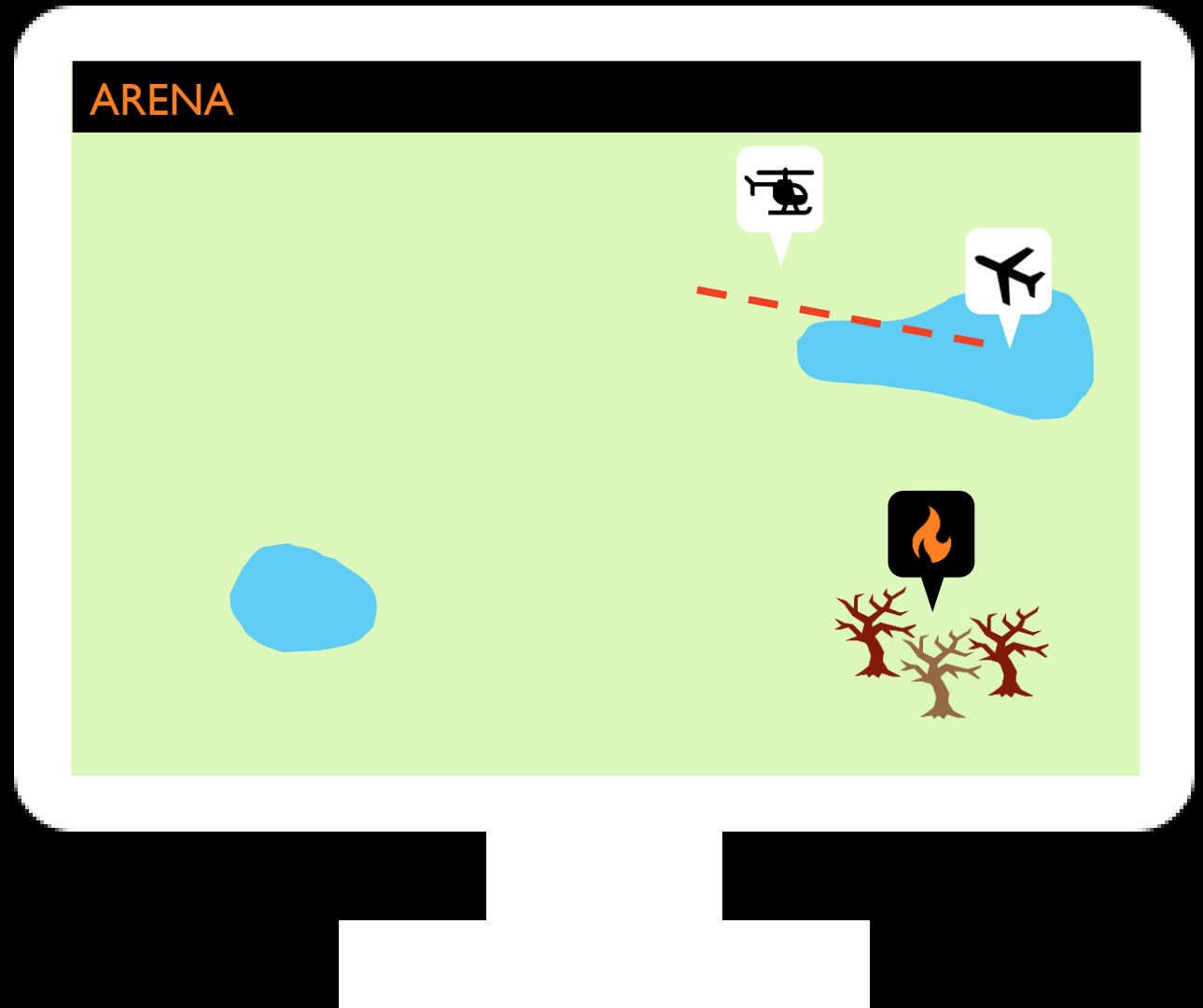
Pre-planning

- Need to station aircraft
- Station near large waterbody that is close to high-risk area



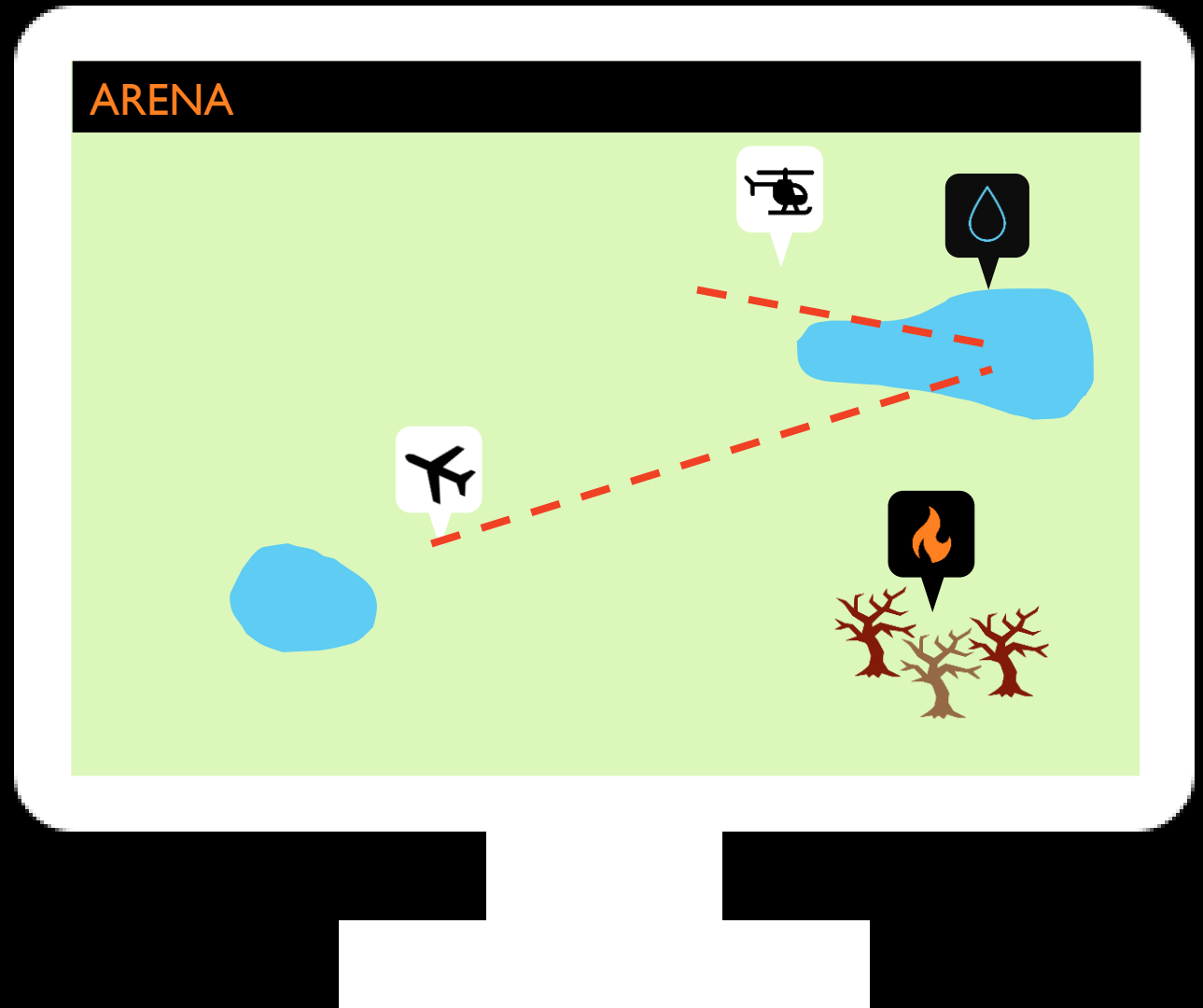
Fire event

- Need to station aircraft
- Station near large waterbody that is close to high-risk area
- Dispatch aircraft to respond



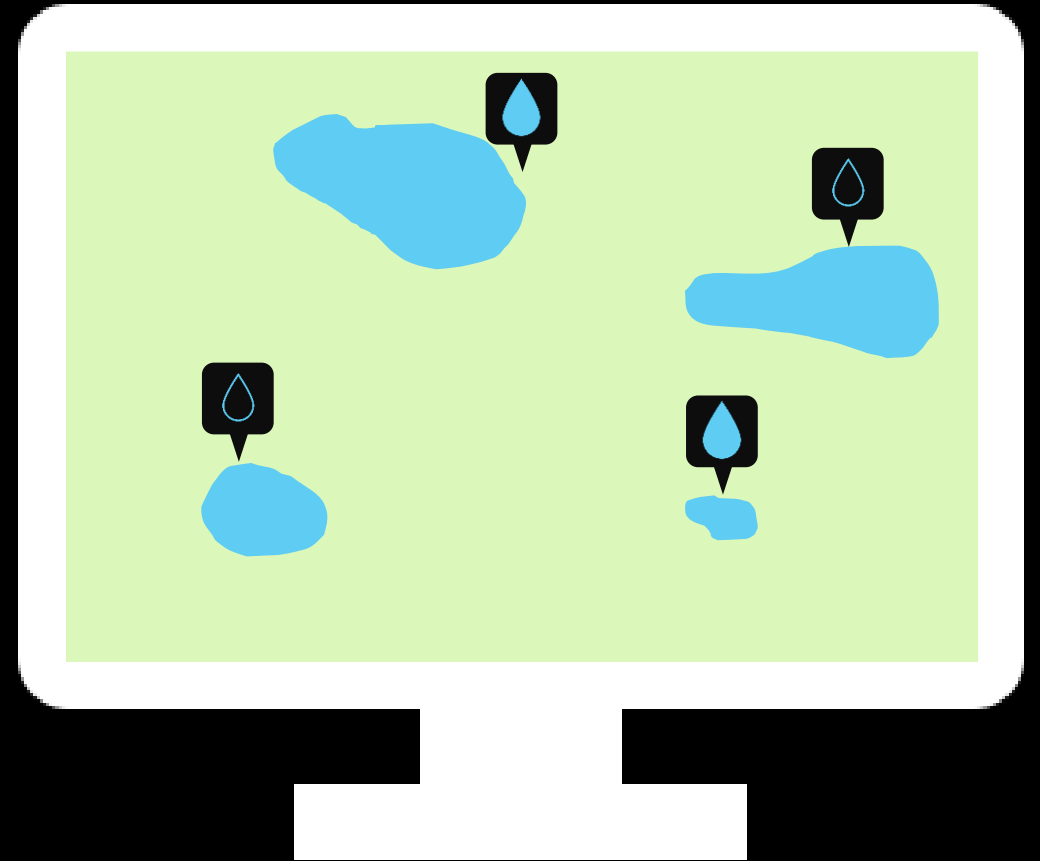
Fire event

- Need to station aircraft
- Station near large waterbody that is close to high-risk area
- Dispatch aircraft to respond
- Pilot reports insufficient water and is redirected



Planners and operators need to know...

- At a glance:
 - When water was last seen
 - The size of the waterbody
 - How much water was available
- In depth:
 - Historical water availability

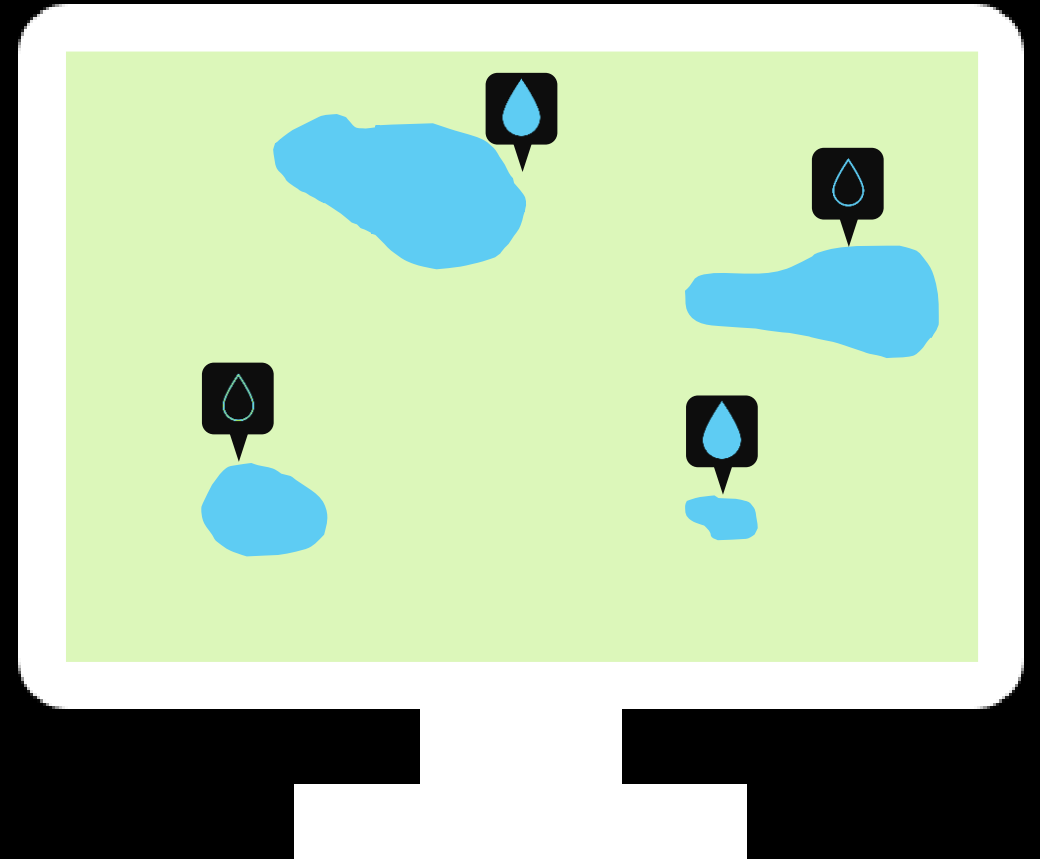




Digital Earth
AUSTRALIA

provides...

- At a glance:
 - When water was last seen ❌
 - The size of the waterbody ✅
 - How much water was available ❌
- In depth:
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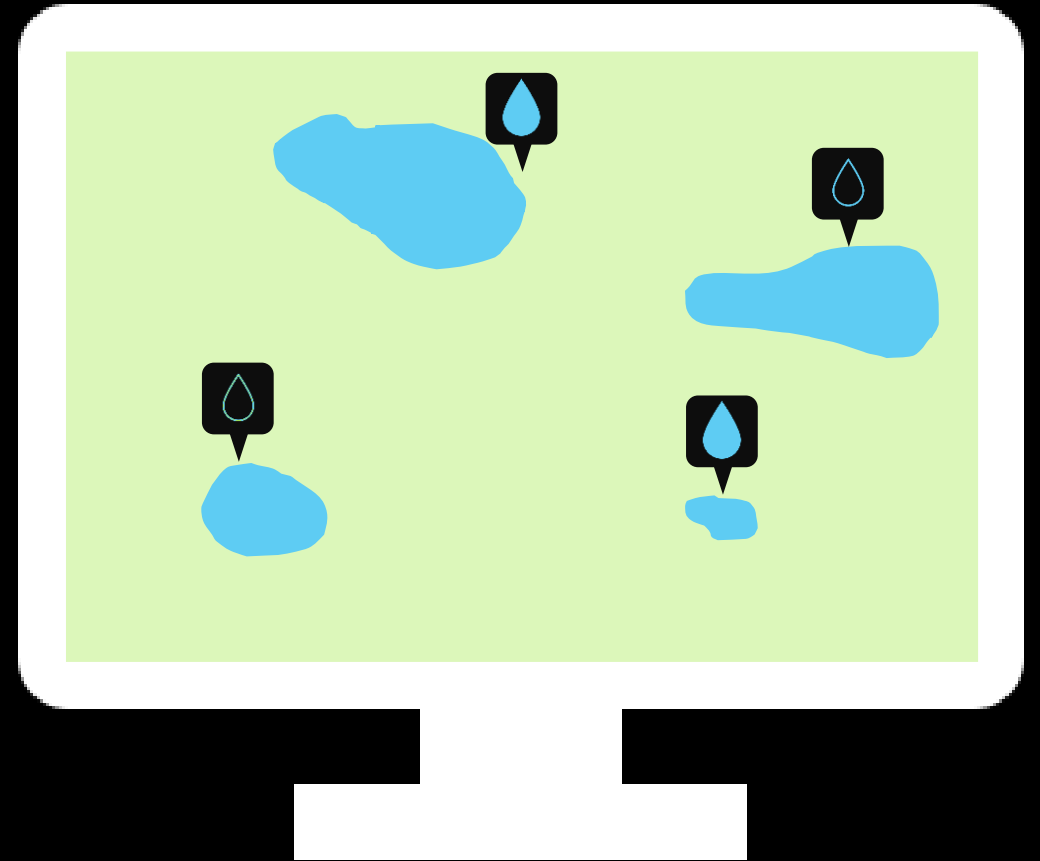




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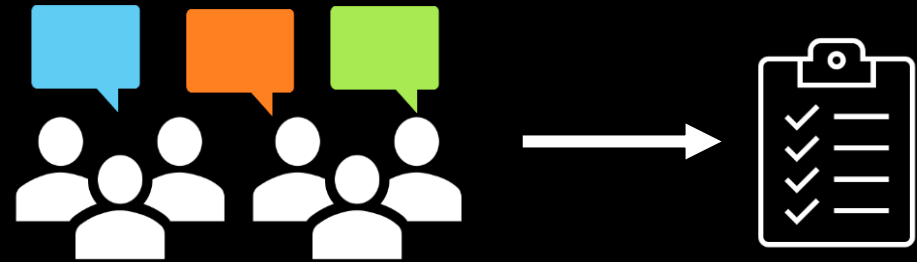


We set out to solve this

We conducted...

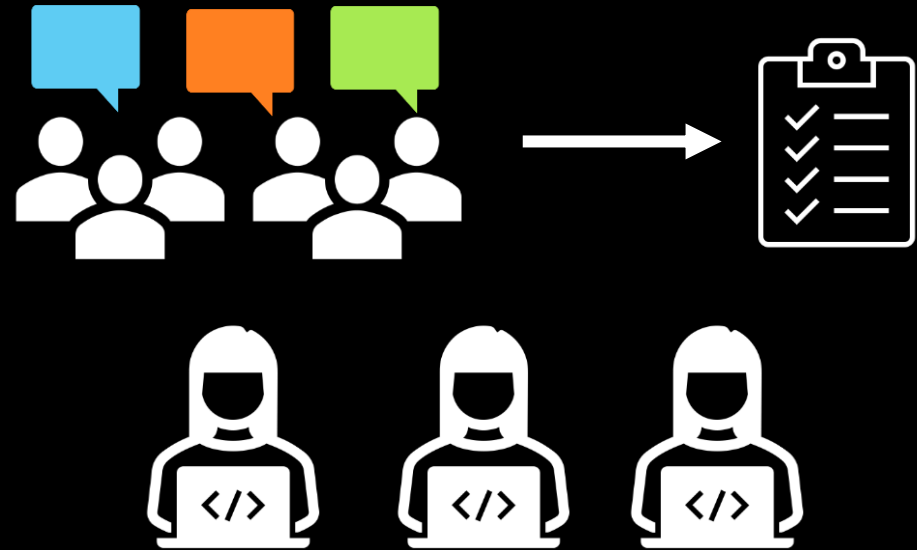
We conducted...

- User needs engagement with members from 8 organisations



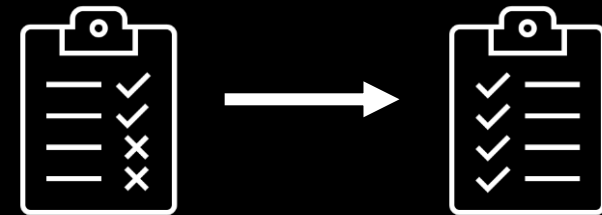
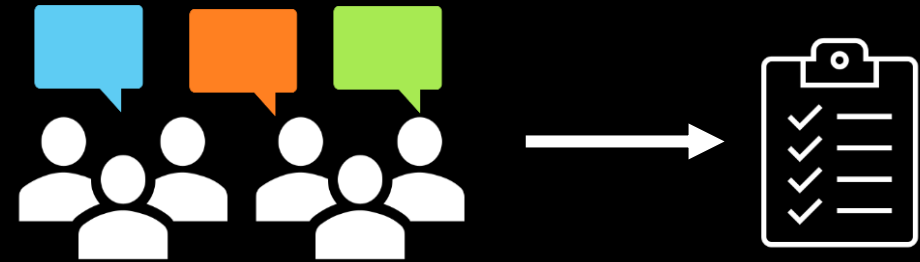
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- User needs engagement with members from 8 organisations
- 3 development sprints



We conducted...

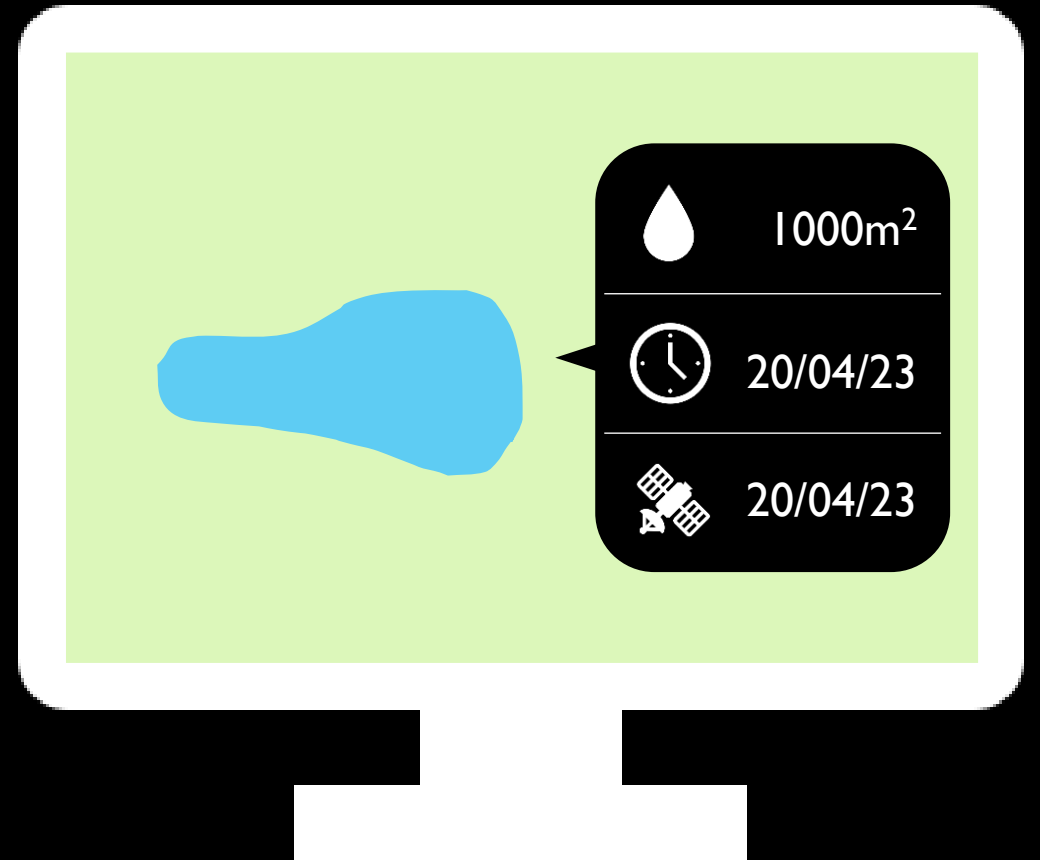
- User needs engagement with members from 8 organisations
- 3 development sprints
- Testing with GA and NAFC



We produced...

A process that updates the waterbody dataset with

- The area of water seen by the satellite
- The date that water was seen
- The most recent date the satellite passed over the waterbody



What's next?

- GA will take steps to implement the process we developed
- NAFC will be able to use a local version of the process
- Take a look at the current waterbodies product at www.maps.dea.ga.gov.au

