

**10th
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wacnz2023.com

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Industry meets innovation: Building the national map of avocado orchards in Australia

Craig Shephard

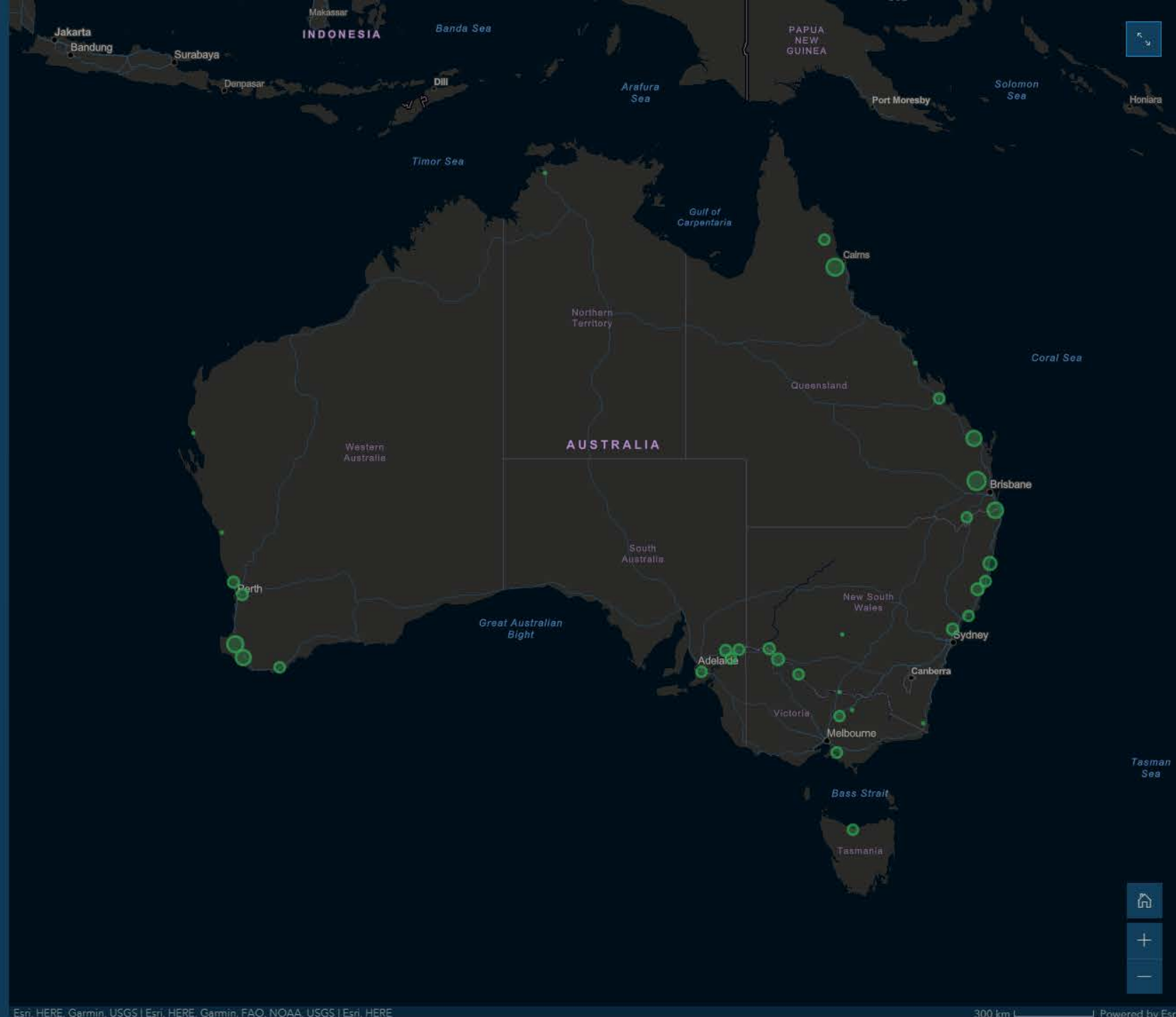


Why a map?

Industry know where you, their members are...
but what about the orchards?

“

*How can your industry successfully manage
your crop, without knowing **where** all the
orchards are?*



What does the map show?

Just the location and extent of commercial orchards.

The map is dynamic. It does not show individual orchards.

“

No personal or commercial information is included in the map

“

Making data-driven decisions at multiple-scales, requires a geographical approach... you need a map!

Some application e.g's, but first we need to understand... the power of geography!





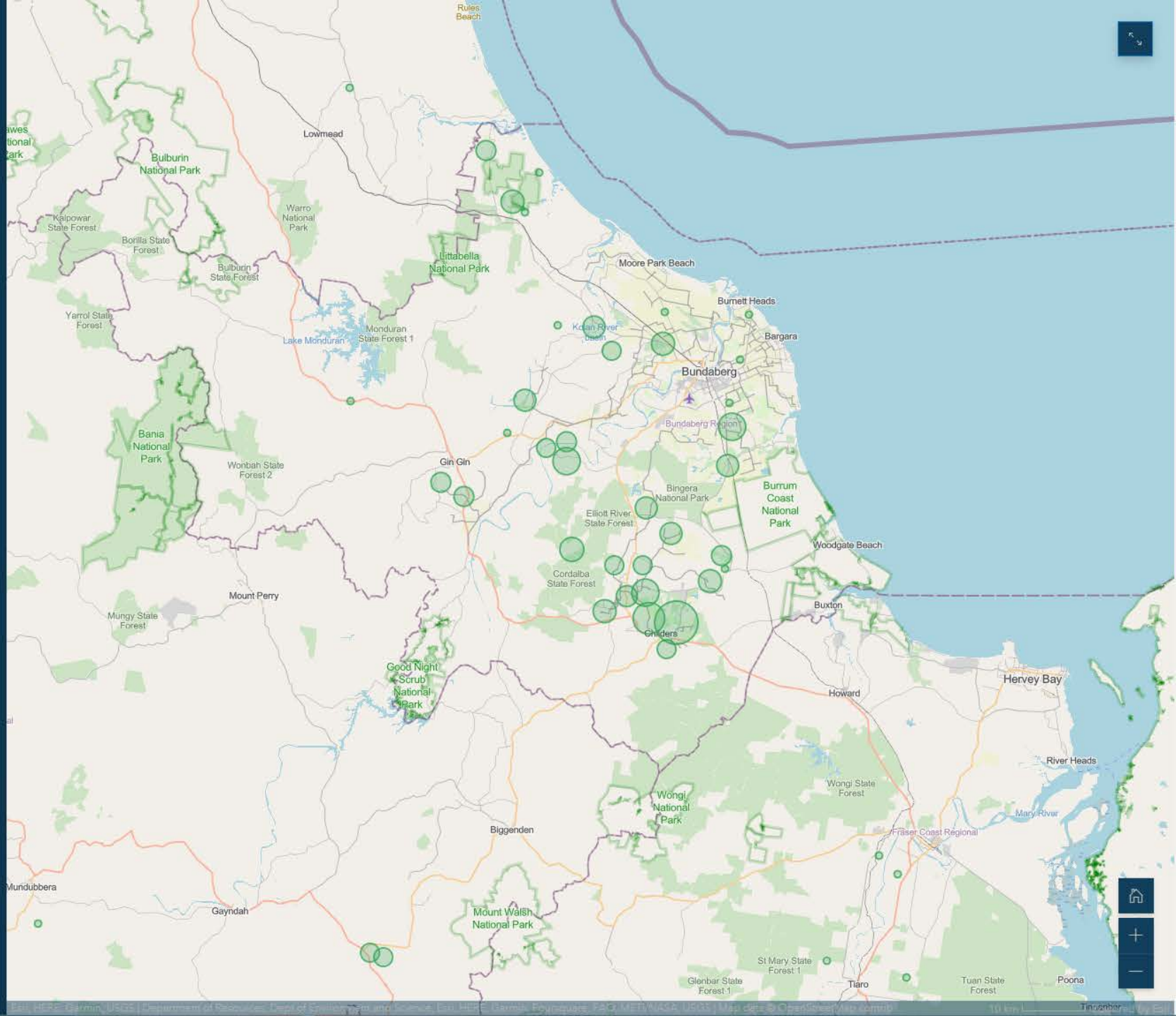
Location is the foundation for bringing information together...

Because the map is ⊕ spatial, we overlay other data, eg. ⊗ streets or ⊕ imagery

The true power of the map is realised when combining it with other spatial data.



Refer to Moshuur Rahman's presentation for applications (inc. yield forecasting) leveraging imagery analytics...



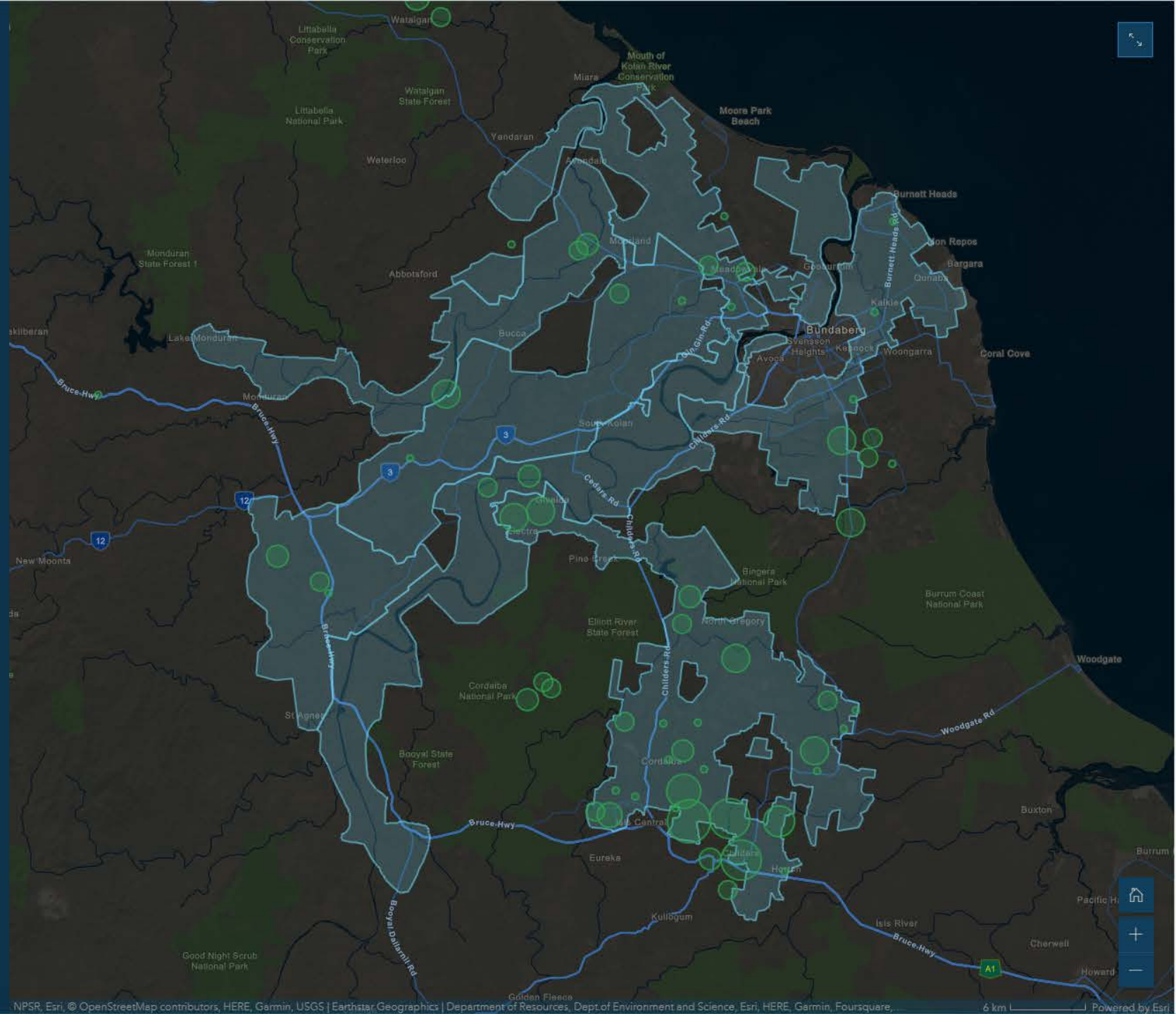
Infrastructure

e.g Water security

The map successfully supported the industry response to [Paradise Dam](#) in [Bundaberg](#).



Dam capacity is now being reinstated.



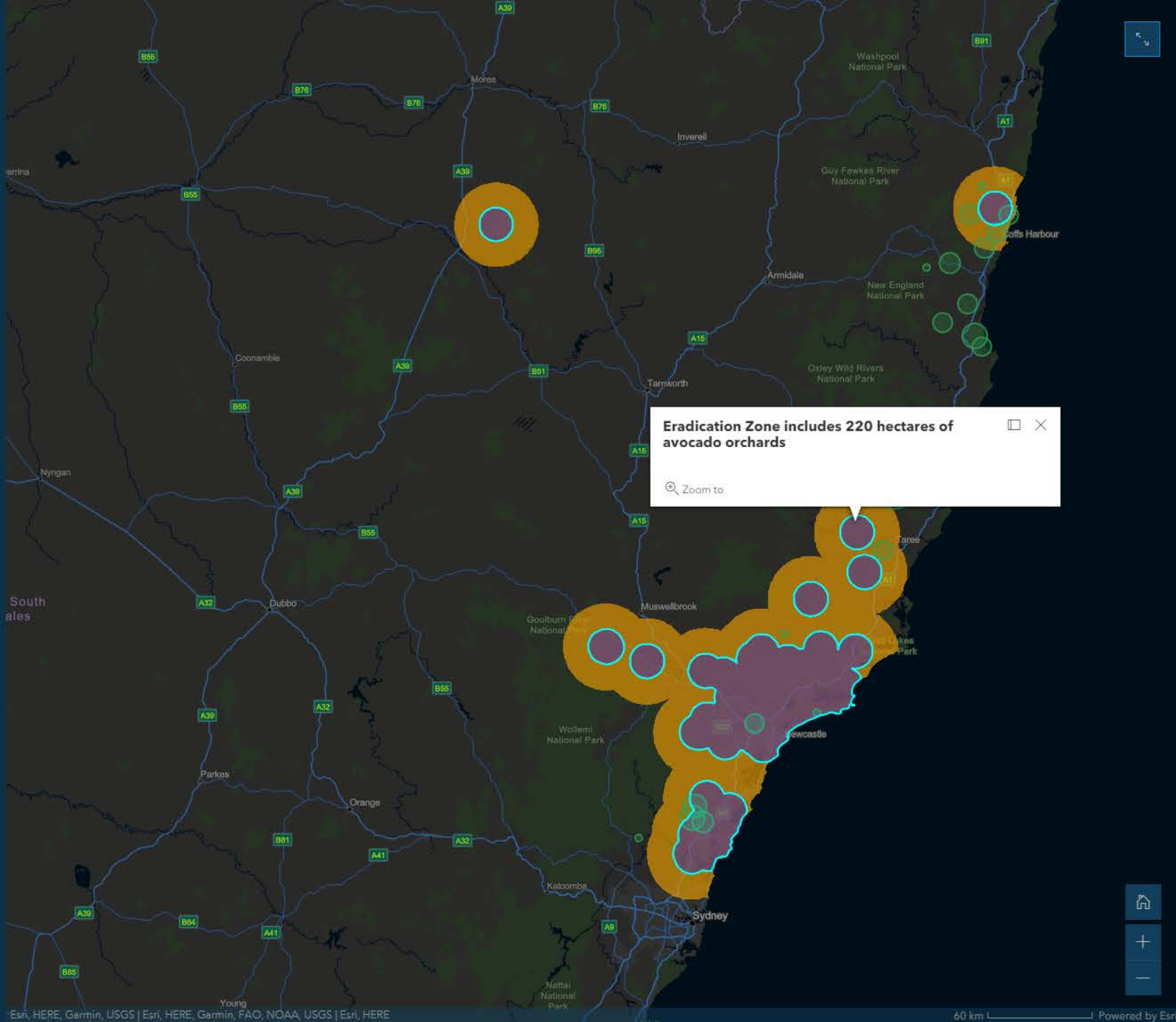
Biosecurity response



The map is essential for timely response and recovery to biosecurity events...

eg. Varroa mite

- set exclusion zones
- coordinate on-ground surveillance
- model vectors of transmission
- monitor / detect change



Natural disaster response and recovery

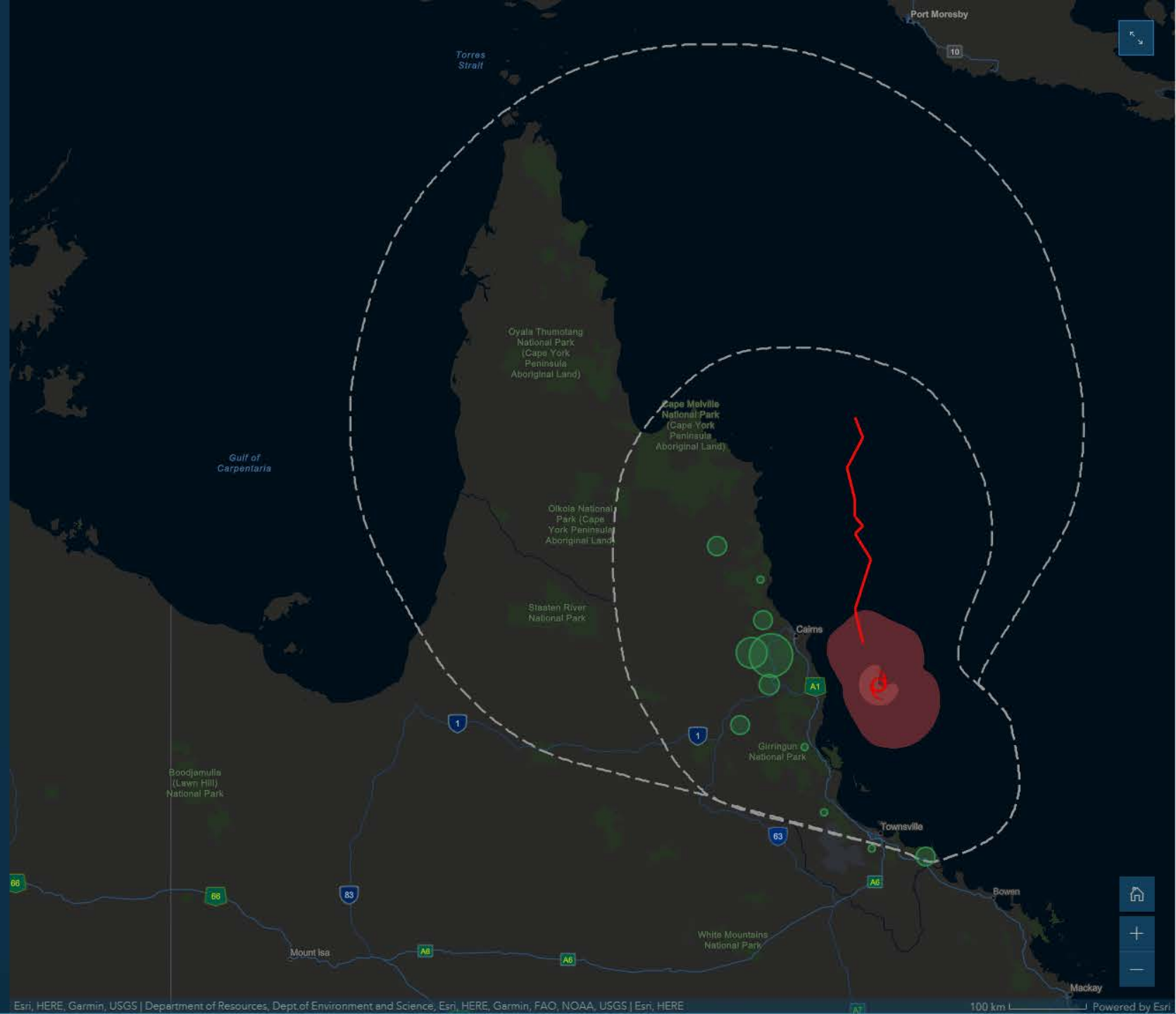
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Tree crops are particularly vulnerable to severe weather events...

- Tropical cyclones (TC Kimi)
- ⊕ Severe thunderstorms and hail

“

Updated in near-real time, assess impacts and prioritise recovery to the affected orchards



Natural disaster response and recovery

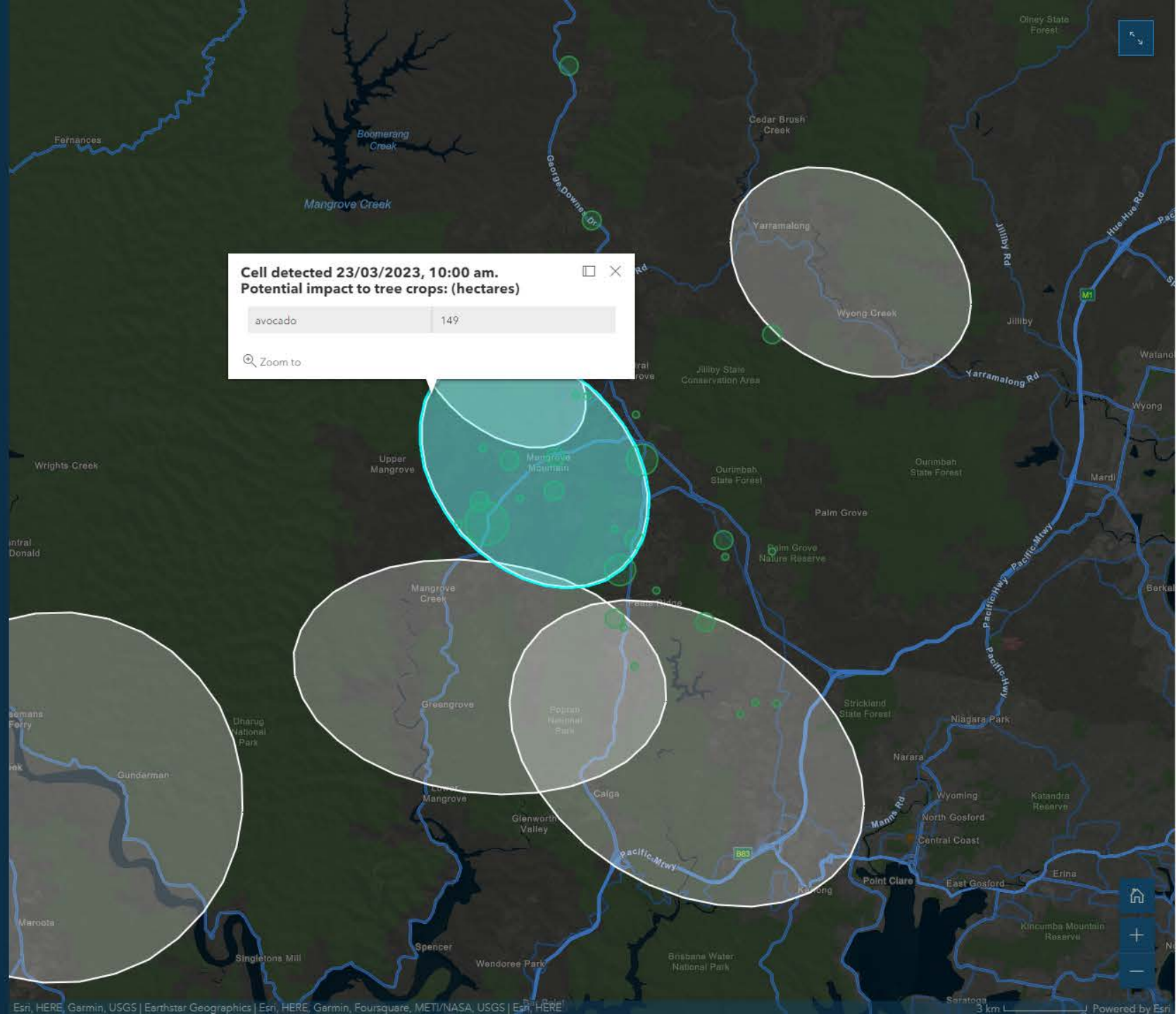


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Mapping methodology



Multiple sources of evidence inform the map...

Industry engagement is key, using innovative location-based tools we engage with industry in contributing to the map



It's essential for mapping new plantings, which cannot be accurately mapped with satellite imagery alone





Is your orchard on the map?

www.avocado.org.au

Using location-based tools, we engage with industry to contribute via a simple survey




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Built for mobile devices! (uses your GPS)

National Avocado Tree Crop Map

Is your orchard on the map?

We're looking to account for all commercial avocado orchards across Australia. Check the map and if your orchard is missing or incorrectly mapped, simply complete the survey in six simple steps:

1. Locate the orchard by selecting the crosshair button  to quickly 'find my location' (browser location must be enabled), or simply search for an address using the search bar.
2. To enlarge the map, click 'Large Map' . To exit large map click .
3. Zoom/pan around the map then click on it to place a marker where required.
4. Enter any comments in the 'Add comment' field. Eg. 'Boundaries are incorrect'; 'This is not avocado'; 'This area should be mapped as avocado', etc.
5. Add a photo, such as a map of your property (optional).
6. Click submit to complete the survey. A 'data sent successfully' message will display. If you need to submit a new entry, please click 'Press here to submit another survey' at the bottom of the message.

Add location*

Use the interactive map to place a pin on your orchard.



Add comment *Optional*

e.g. variety or year planted

Attach image *Optional*

e.g. capture/upload photo of trees/orchard

Taking it to the next level...

Industry only maps!



Built by industry, for industry!

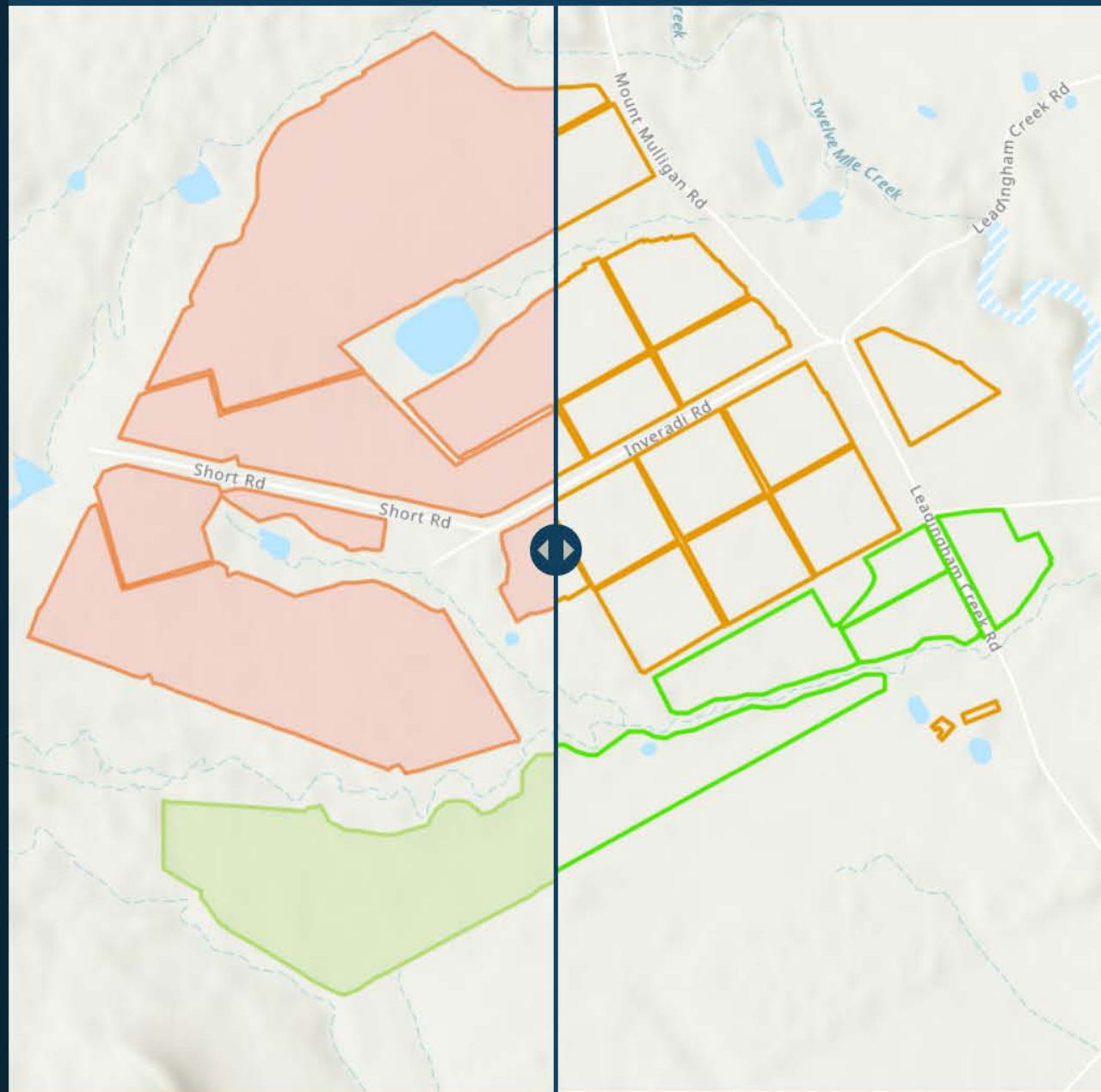
Greater detail (block level) and more information: eg. Tree census

- Block ID
- Cultivar / Variety / Rootstock
- Tree age / Planting year



All information is secured for industry only under sign-in access

R&D with Citrus Australia, AARSC now supporting traceability across Australian avocado, banana and macadamia industries.



Contact us:

www.une.edu.au/webapps



Questions

Thanks to our sponsors and partners:

