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Overview

- RPAS has been used to inspect vulnerable sites post weather events and to monitor identified erosion sites.
- Two sites covered in this presentation
- Docertys Creek (Franz Josef) flash flood
- Crooked River (Lake Brunner) erosion

2

Dochertys Creek Access following South Island Flooding

South Island flooding



- Following a large weather event on 8th December 2019 a flash flood washed out three structures in the 33kV South Westland Line at Dochertys Creek.
- Temporary repairs were made with what was available south of Mount Hercules due to slips, these closed the road until mid January 2020. These slips also destroyed two structures on Mount Hercules.

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Dochertys Creek Fieldwork

- Able to access site January 2020
- Line route flown
- Survey carried out and new pole positions pegged
- Design prepared

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RPAS Inspection



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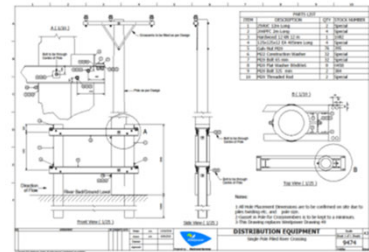
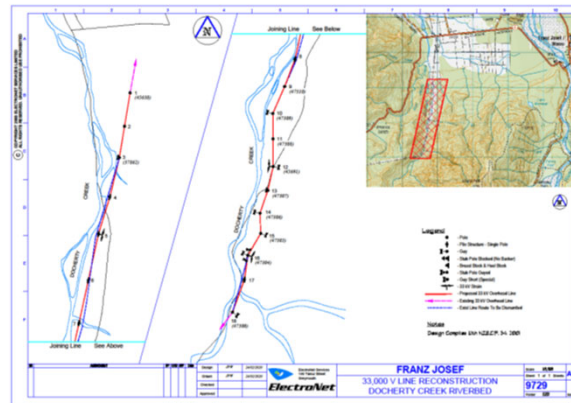
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Design

- Line route limited to existing corridor as in a National Park
- Alternative routes more prone to slips
- 6 Structures installed on Piles



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Crooked River

- The river changed course towards where an 11kV line feeding Te Kinga, a small village mainly comprised of holiday homes at Lake Brunner.



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Background

- An alternative route was looked at
- While negotiations were carried out the sight was monitored by RPAS
- A point cloud was created of the proposed line route and existing route
- The threatened pole was moved to allow for time for permanent solution to be built.

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29 November
2019



13

12 December
2019



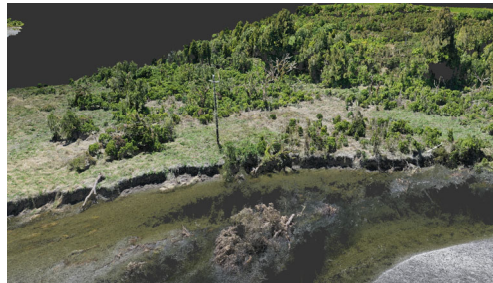
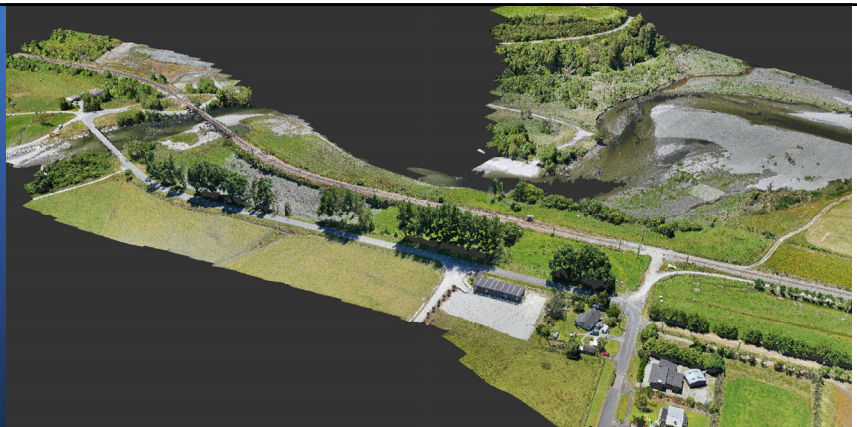
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January 2020

- Negotiations still ongoing
- Existing and proposed line route flown by drone
- Point cloud created
- Decision made to move threatened structure temporarily.

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Point Cloud flown 14 January 2020



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Pole has been moved in January to allow time for shutdown to run new conductor

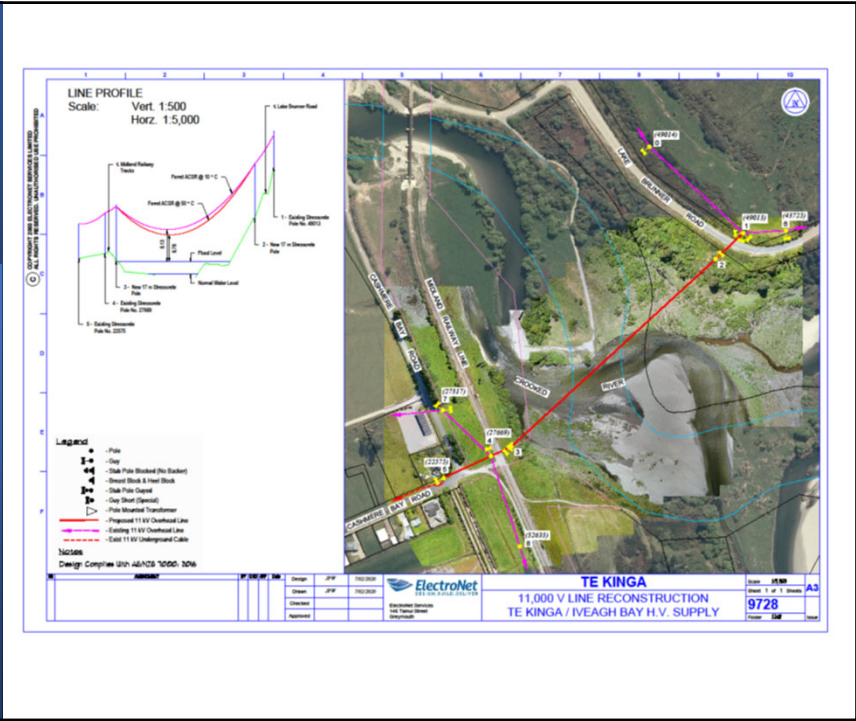
15 February 2020



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Existing line route used

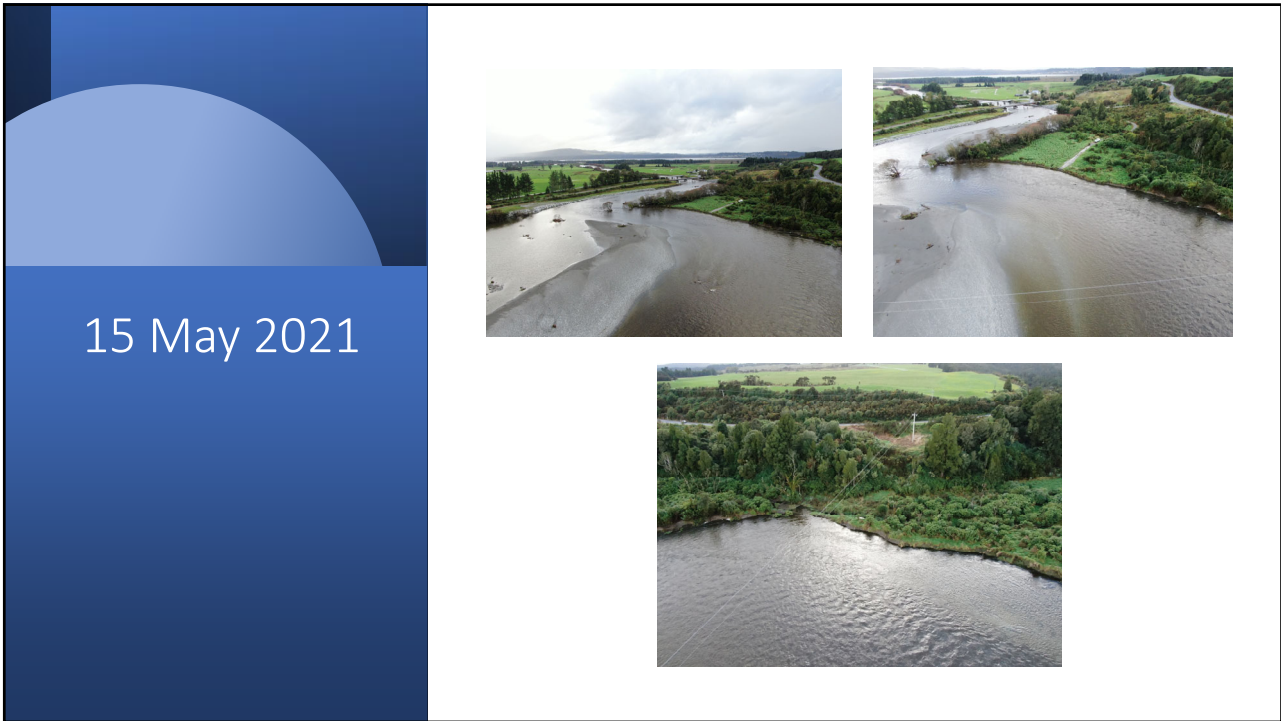
Rebuild



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Before And After

