



WireWATCH

by Stantec

100%

Stantec's WireWATCH gives you 100% coverage of your assessment area

WATCH your power lines for vegetation encroachment using satellites

Vegetation encroachment on power lines leads to numerous line outages and wildfires every year. Utilities have developed a variety of ways to identify potential problem spots, including ground surveys, aerial reconnaissance in fixed-wing aircraft and helicopters, reports from customers, and databases of past clearing activities. These methods are labor intensive and come at a high cost.

What is the benefit?

By harnessing the power of geographic information systems and state-of-the-science satellite imagery, we can quickly and effectively evaluate thousands of miles of power lines. Armed with this system-wide information, utilities can prioritize locations for field surveys and corrective actions. Our targeted approach allows frequent audits, and provides you with another tool to focus efforts and subsequently document the effectiveness of clearance activities. This is WireWATCH.

How does it work?

We use vegetative indices derived from satellite images to identify areas of heavy vegetation biomass within utility corridors. Our team of specialists has developed the tools to efficiently process vast quantities of this information and display it in an easy-to-use web portal for our clients to access at any time. The best part about WireWATCH is that it is dynamic--the data update as frequently as every few days depending on the priorities of the user.

The value of WireWATCH

In 2018, Stantec was hired by Aurora Energy in Dunedin, New Zealand to evaluate over 2500 miles of powerlines throughout their territory. Not only did our team quickly complete the work, but the final deliverable included an interface that allows the client to adaptively prioritize field work on the areas that need it most.

Potential Vegetation Encroachment Site

Easting	123°45'67.89° E	Date	5/31/2018
Northing	123°45'67.89° S	Time	13:34:23
Elevation	1034.2 ft.	Segment	G12-715

Alert : Potential vegetation encroachment site detected

Issue : Line segment exceeds vegetation biomass limit at line segment G12-715

QA/QC : Confirmed

Action : Field team deployment for ground inspection

Vegetation Encroachment Areas (click row to zoom)

FEEDERID	Voltage	LandType	EVI_threshold	polyid	area_sqm	row_id	exclude
708	G11	LV	0.40	2456	7.65	708	<input type="checkbox"/>
709	G11	LV	0.40	2461	437.10	709	<input type="checkbox"/>
710	G11	LV	0.40	2466	11.17	710	<input type="checkbox"/>
711	G11	LV	0.40	2468	49.43	711	<input type="checkbox"/>
712	G11	LV	0.40	2489	6.53	712	<input type="checkbox"/>
713	G12	HV	0.40	2481	5.95	713	<input type="checkbox"/>
714	G12	HV	0.40	2482	36.22	714	<input type="checkbox"/>
715	G12	HV	0.40	2483	132.88	715	<input checked="" type="checkbox"/>
716	G12	LV	0.40	2523	262.34	716	<input type="checkbox"/>
717	G12	LV	0.40	2524	199.85	717	<input type="checkbox"/>
718	G12	LV	0.40	2525	595.91	718	<input type="checkbox"/>
719	G12	LV	0.40	2540	185.58	719	<input type="checkbox"/>
720	G12	LV	0.40	2542	14.30	720	<input type="checkbox"/>
721	G12	LV	0.40	2543	218.12	721	<input type="checkbox"/>

Vegetation Statistics for this Selection

MAP	area_percent	area_sqm
LV	23%	54,115
HV	2%	296,565
Total	8.7%	348,718

The WireWATCH web portal gives you a dashboard of color-coded network images, key data and even encroachment alerts.



Powerline distribution network coded by vegetation encroachment severity – red (high), yellow (moderate), green (low), black (none).

Benefits of WireWATCH

- Single portal that provides access to the entire system in an easy to use dashboard
- Guides field deployment to highest priority locations
- Allows regular updates to the data so vegetation managers can audit and report on field activities
- Reduces time in the field, thus lowering cost and safety risk

When can WireWATCH be used?

- Transmission Line Network Evaluations
- Distribution Line Network Evaluations
- Annual Planning
- Auditing of Work Areas

Connect with us



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