

Wotonga offset area — monthly land monitoring

Period: 2023-08 to 2023-09 | **Site:** 1,312 ha Wotonga offset area within Lot 13 SP178466 | **Generated:** 2026-10-04 UTC

Satellite observations only. This page describes detected surface change; it makes no finding about legal compliance.

Measure	Computed result	Method	Accuracy / interpretation limit
Vegetation cover	89.1% (-6.7 percentage points)	Share of jointly valid 10 m Sentinel-2 pixels with NDVI ≥ 0.30 ; change from prior month.	Spectral green cover, not vegetation type or ecological condition. Seasonal and soil-background effects remain; ± 1 pixel (10 m) at edges.
Potential clearing	0.00 ha	Prior NDVI ≥ 0.30 , current NDVI < 0.20 , and NDVI fall ≥ 0.20 on jointly valid pixels.	Screening flag, not proof of clearing. Small/narrow changes below 10–20 m may be missed; shadows, senescence or disturbance can mimic loss.
Potential fire scar	0.00 ha	NBR fall ≥ 0.20 and current NBR < 0.20 using NIR and SWIR on jointly valid pixels.	Screening flag, not a fire perimeter. Burn severity thresholds are uncalibrated locally; bare soil can be confused.
Open water	0.00 ha	Current MNDWI ≥ 0.15 and NDVI < 0.20 on valid pixels.	Surface water visible to Sentinel-2 only. Tree cover, turbidity and sub-pixel water reduce detection; wet soil/shadow can confuse.

Observation record

Previous: 7d883393-a540-4c61-b417-eef5fba0e7d9, f46b114c-5a82-4e88-85fd-8a553d1c9de0 (2023-08-13), polygon-valid coverage 100.0%, tile footprint 100.0%. Current: d9b8df91-9ffe-4972-b865-9d7bcec6a5a5, e8c983c2-d7dd-4be9-9738-0a927480bcef (2023-09-22), polygon-valid coverage 100.0%, tile footprint 100.0%. Jointly valid: 100.0% / 135,066 pixels. Hectares are classified 10 m pixels $\times$ 0.01 ha; the polygon-centre grid contains 135,066 pixels (1350.66 ha).

Boundary. The 29 declared-area coordinates were transcribed from page 25 of the 2023 Wotonga Offset Area Management Plan. The transcription computes to 1343.7 ha geodesically versus the plan's 1,312 ha vegetation total (difference +2.4%); the polygon-derived grid, not the stated area, is the denominator and hectare basis. Independent transcription checking is required before operational use. The plan labels GDA94; coordinates are treated as geographic longitude/latitude, whose shift from WGS84 is sub-pixel at this scale.

Unavailable corroboration. NASA FIRMS event corroboration is not printed because the automated FIRMS area feed requires a MAP_KEY not present in this build. NVIS is not used for monthly change because it is a vegetation-type baseline, not monthly imagery. No value has been substituted.

Known limits. Candidate days were ordered by lowest scene-level cloud metadata; the first same-day multi-tile observation with at least 70% valid site coverage was used. This does not prove it was the clearest observation over the site or represent a monthly median. Thresholds are transparent but not field-calibrated for Wotonga. Cloud/shadow filtering uses DEA FMask classes 1 and 5 as valid. Results must be independently checked against imagery and field evidence before reliance.

Sources and licence attribution. Sentinel-2 Analysis Ready Data supplied by Digital Earth Australia / Geoscience Australia, © Commonwealth of Australia, licensed CC BY 4.0. Contains modified Copernicus Sentinel data. Boundary source: M Resources, Wotonga Offset Area Management Plan 2023 (public compliance document). Queensland cadastral cross-check: State of Queensland (Department of Resources), CC BY 4.0. NASA FIRMS and NVIS were assessed but did not supply printed measurements in this run.