

# Area A (Bamfield) area, Regional District of Alberni-Clayoquot, BC

## Site Intelligence Report



Area	1329.2 ha (13.29 km <sup>2</sup> )
Location	N48.8109 S48.7838 E-125.0766 W-125.1370
Report Date	April 23, 2026

### What's Included in This Report

1. Site Overview	Coordinates, area, admin district, data sources
2. Neighbourhood Context	3 map views (aerial, street, regional), environmental scorecard
3. Zoning	Zone code, development rules, setbacks, suite/STR status
4. Terrain & Access	Elevation, SIFT soil type, drainage class, ag capability, BEC zone, road access
5. Vegetation	VRI species composition, stand height, age, crown closure, volume
6. Regulatory Flags	ALR status, FWA streams, wetlands, wildlife habitat areas
7. Climate	NASA POWER 30yr temperature & precipitation charts
8. Growing Season	GDD, frost-free days, site productivity assessment
9. Solar	Seasonal radiation, KMZ solar layer summary
10. Biodiversity	iNaturalist observations, wildlife & aquatic habitat context
11. Due Diligence	Aquifers, wells, floodplains, forest tenure, crown land checklist
12. Priority Actions	Site-specific recommended next steps

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# 1. Site Overview

Site Name	Area A (Bamfield) area, Regional District of Alberni-Clayoquot, BC
Centre Point	48.79736°N, -125.10681°W (approx)
Bounding Box	N48.8109 / S48.7838 / E-125.0766 / W-125.1370
Site Area	1329.2 ha (13.29 km <sup>2</sup> )
Report Date	2026-04-23
Data Sources	NASA POWER 30yr, Open-Elevation (SRTM), DataBC FWA, BEC Zone, VRI, ALR, Wildlife Habitat Areas, BC SIFT Soil Survey, OSM Roads, iNaturalist, BC Floodplains, Aquifers, Wells, Zoning DB



# 2. Neighbourhood Context

## NEIGHBOURHOOD CONTEXT



## ENVIRONMENTAL SUMMARY

<p>■ ALR STATUS</p> <p><b>No data</b></p>	<p>■ REGIONAL DISTRICT</p> <p><b>Regional District of Alberni-Clayoquot</b></p>
<p>■ NEAREST WATERCOURSE</p> <p><b>Clonard Creek, Pachena River</b></p>	<p>■ AQUIFER</p> <p><b>None</b></p>

■ BEC ZONE  
**Not mapped**

■ ECOSECTION  
**Vancouver Island Shelf**

■ WILDLIFE HABITAT  
**None mapped**

■ CROWN LAND (1KM)  
**9 tenure(s)**

■ WELLS (500M)  
**9 well(s)**

■ FOREST TENURE  
**None**

■ FLOODPLAIN  
**Not mapped**

**Road Access**

Verify road access classification with local municipality. Nearby watercourse: Clonard Creek

### 3. Zoning

Zoning data is not available for this location. The prework.ca zoning database covers 131 BC municipalities. This parcel may fall outside a municipal boundary or in an area without digitized zoning data. Check with your local government for zoning designation.

### 4. Terrain & Access

<p>ELEVATION  <b>~63 m</b>                  Centre point (live)</p>	<p>ASPECT  <b>Variable aspects</b></p>
<p>SOIL TYPE  <b>SARITA series</b></p>	<p>BEC ZONE  <b>Coastal Western Hemlock (CWHvh1)</b>                  Biogeoclimatic ecosystem</p>
<p>ROAD ACCESS  <b>Bamfield Main</b>                  Paved access nearby</p>	

**Soil & Substrate**

Soil classification	SARITA series
Drainage class	Moderately Well
Surface texture	L
BEC zone	Coastal Western Hemlock (CWHvh1)
Data source	BC Soil Information Finder Tool (SIFT) — DataBC WFS

Note SIFT soil data is mapped at reconnaissance scale (1:20,000–1:250,000). On-site investigation recommended before foundation or drainage design.

### Road & Site Access

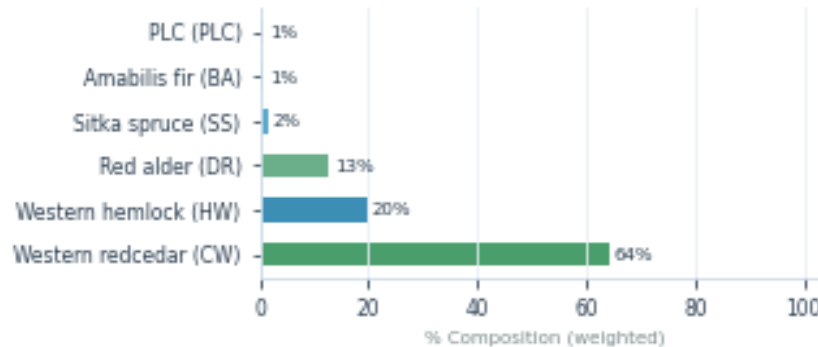
Best access road	Bamfield Main
Road segments nearby	50 total — 26 paved, 24 unpaved/track
Named roads nearby	Bamfield Main, South Bamfield Road, Nookemus Road, Anacla Road, Clutus Road, Lmchiss Way, Malsit Road, Black Lake Main
Access assessment	Good — paved road access

## 5. Vegetation & Forest Cover

### DataBC VRI — Stand Characteristics

Projected Tree Height	21.1 m mean / 33.1 m max
Crown Closure (Canopy Density)	39% — Open canopy
Projected Stand Age	143 years (mean)
Live Stand Volume	216 m <sup>3</sup> /ha (mean)

### Species Composition (VRI)



### LiDAR Data Note

Where a Map Pack has been ordered for this site, LiDAR-derived canopy height models and slope layers are included in the KMZ. The map pack solar layers include June, September, and December canopy shadow modelling. Provincial LiDAR coverage for BC is available via the BC LiDAR viewer at [governmentofbc.maps.arcgis.com](http://governmentofbc.maps.arcgis.com). Coverage density varies by region; Discovery Islands and central Vancouver Island coastal areas have partial-to-good coverage as of 2024.

Vegetation data sourced from BC Vegetation Resource Inventory (VRI) via DataBC WFS. VRI data reflects inventory year at time of last aerial survey and may not capture recent harvesting, fire, or disturbance events. Species composition is based on leading and secondary species codes within polygons intersecting the site boundary.

## 6. Regulatory & Environmental Flags

### Site Regulatory Summary

<b>Agricultural Land Reserve</b>	No data available for this site
<b>FWA Watercourses</b>	50 stream segment(s) mapped — named: Clonard Creek, Pachena River
<b>FWA Lakes</b>	No lakes mapped in site area
<b>Nest Trees (Wildlife Act)</b>	No data available for this site
<b>Wildlife Habitat Areas</b>	None mapped in site area
<b>Crown Land Tenures</b>	9 active tenure(s): RESERVE/NOTATION — MISCELLANEOUS LAND USES; RIGHT-OF-WAY — UTILITY; LICENCE — UTILITY; RIGHT-OF-WAY — INSTITUTIONAL; RIGHT-OF-WAY — UTILITY
<b>Floodplain</b>	Not within a mapped floodplain

### FWA Watercourses & Setbacks

✘ High-order stream (order 4) mapped in area — Clonard Creek, Pachena River. BC Riparian Areas Regulation setbacks and DFO fish habitat provisions likely apply within 30m.

■ Named watercourses: Clonard Creek, Pachena River (DataBC FWA)

### Mapped Watercourses — FWA Detail

Name	Order	Type	Setback Ref
Pachena River	4	Wetland flow	S4 — 30m RMA
Unnamed watercourse	3	River/Stream	S3 — 30m RMA
Unnamed watercourse	2	Lake outlet	S2 — 30m RMA
Clonard Creek	2	Connector	S2 — 30m RMA
Unnamed watercourse	1	Connector	S1–S2 — 30m RMA (fish-bearing, likely)
Clonard Creek	1	Connector	S1–S2 — 30m RMA (fish-bearing, likely)

Stream names and orders sourced from BC Freshwater Atlas (FWA) via DataBC. Stream order follows Strahler classification. Fish-bearing status not confirmed by FWA alone — consult PSCIS or DFO habitat mapping for fish presence before works.

### Wetlands

■ 4 wetland polygon(s) (~75.1 ha) in area. Environmental Management Act and riparian regulations likely apply.

### BC Setback Quick Reference

Feature	Minimum Setback	Notes
Fish-bearing stream (S1–S4)	30 m	Riparian Management Area under FRPA
Non-fish stream (S5–S6)	10–20 m	Varies by stream width and gradient
Wetland / lake	15–30 m	Check local government zoning
ALR (if in reserve)	ALC approval required	Non-farm use requires ALC application

**REGULATORY DISCLAIMER:** Setback distances and regulatory flags shown above are **generic statutory minimums** drawn from public guidance documents. Site-specific setbacks may be larger under local bylaws, riparian assessments, fish-bearing status, geotechnical reports, environmental DPAs, or restrictive covenants on title. ALR, FWA, WHA, nest tree, and crown tenure layers are **not exhaustive** -- absence on the map is not evidence of absence on the ground. **Before any ground disturbance, tree removal, or works near watercourses**, engage a Qualified Environmental Professional (QEP), consult the local municipality, BC Ministry of Environment, BC Ministry of Forests, DFO, and obtain any required permits. Swell Farms Inc. provides this regulatory summary for screening only and accepts no liability for compliance, permitting, or enforcement outcomes.

## Wildlife — Nest Trees, WHA & UWR

### Mapped Nest Trees & Wildlife Habitat Features

✓ No nest trees or wildlife habitat features mapped in this area per DataBC WCP\_WILDLIFE\_HABITAT\_FEATURE\_POLY. This does not confirm absence — unmapped nests are common on Vancouver Island and coastal BC. A field check is recommended before any clearing.

### Wildlife Habitat Areas (FRPA)

✓ No Wildlife Habitat Areas mapped in this area (DataBC WCP\_WILDLIFE\_HABITAT\_AREA\_POLY).

### Ungulate Winter Range (FRPA)

✓ No Ungulate Winter Range polygons mapped in this area (DataBC WCP\_UNGULATE\_WINTER\_RANGE\_SP).

### CDC Species at Risk Occurrences

✓ No CDC species at risk occurrences mapped in this area (DataBC BIOT\_OCCR\_NON\_SENS\_AREA\_SVW). Sensitive occurrences are excluded from public layers — absence does not confirm no species at risk.

### SPI Wildlife Survey Observations

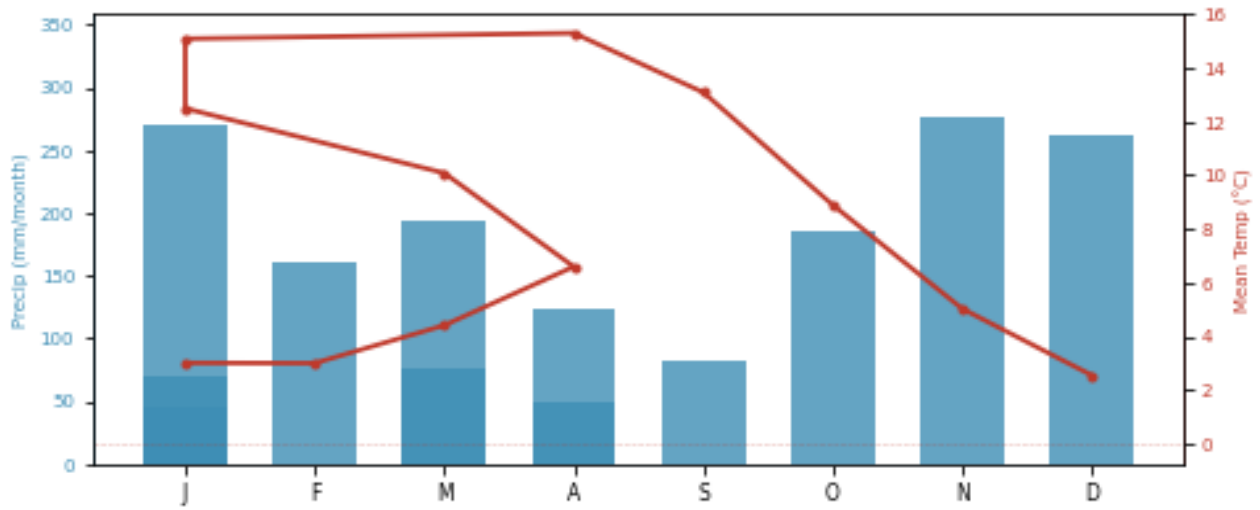
✓ No SPI wildlife survey observations recorded in this area (DataBC SPI\_SURVEY\_OBS\_NONSENS\_SP).

Wildlife data sourced from DataBC WFS (WCP\_WILDLIFE\_HABITAT\_FEATURE\_POLY, WCP\_WILDLIFE\_HABITAT\_AREA\_POLY, WCP\_UNGULATE\_WINTER\_RANGE\_SP, BIOT\_OCCR\_NON\_SENS\_AREA\_SVW, SPI\_SURVEY\_OBS\_NONSENS\_SP). Nest tree and WHA coverage may be incomplete in rural areas. CDC sensitive occurrences are excluded from public layers. A field survey and QEP assessment is recommended before any ground disturbance near forested areas, regardless of mapped feature presence.

## 7. Climate

ANNUAL PRECIP <b>1794 mm/yr</b> NASA POWER 30-yr	WETTEST / DRIEST <b>Nov / Jul</b>
MEAN ANNUAL TEMP <b>8.3 °C</b> Warmest Aug, coldest Dec	FROST-FREE DAYS <b>122 days/yr</b> Approx — verify with local records

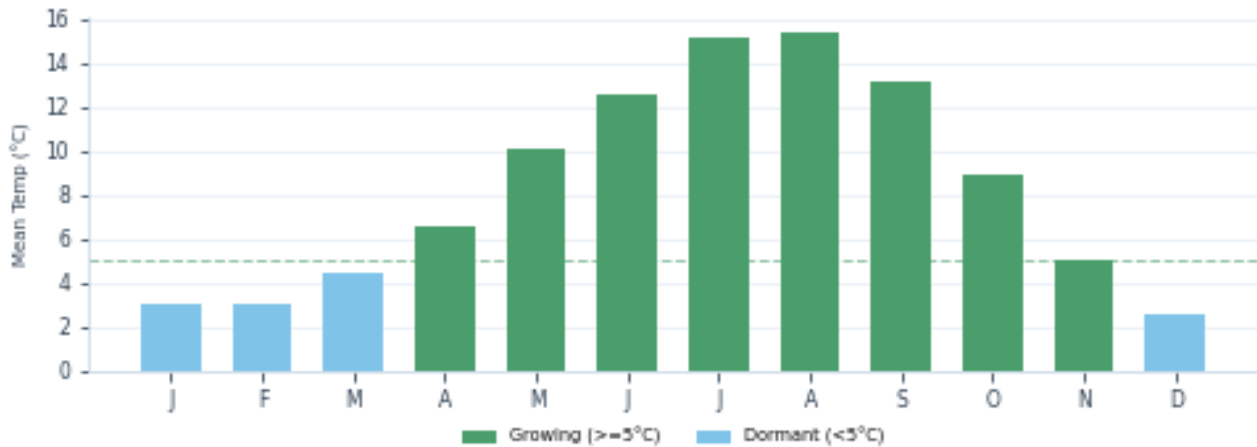
### Monthly Temperature & Precipitation (NASA POWER 30-yr)



## 8. Growing Season & Site Productivity

<p>FROST-FREE DAYS</p> <p><b>122 days/yr</b></p> <p>Last frost ~May / First frost ~Oct</p>	<p>GROWING SEASON</p> <p><b>244 days</b></p> <p>Apr – Nov</p>
<p>GDD BASE 5°C</p> <p><b>1,426 degree-days</b></p> <p>Moderate — vegetables, small fruit</p>	<p>GDD BASE 10°C</p> <p><b>492 degree-days</b></p> <p>Limited heat for warm crops</p>
<p>ANNUAL PRECIP</p> <p><b>1,794 mm/yr</b></p> <p>Wettest Nov, driest Jul</p>	<p>SUMMER PRECIP (JUN-AUG)</p> <p><b>164 mm</b></p> <p>Adequate summer moisture</p>

### Monthly Temperature — Growing Season Profile



## Site Productivity Assessment

Use / Crop Type	Suitability	Notes
Cool-season vegetables (kale, brassicas, root crops)	Yes	FF days 122
Pasture / hayfield	Yes	1,426 GDD5 available
Fruit trees (apple, pear, plum)	Marginal	Requires well-drained slope, frost pocket avoidance
Soft fruit (strawberry, raspberry, blueberry)	Yes	High precip may require raised beds
Cannabis / hemp (outdoor)	Marginal	Check local bylaws. Needs full sun aspect.
Greenhouse / tunnel production	Good	Solar mean 3.29 kWh/m <sup>2</sup> /day
Year-round construction activity	Fair	Best work months: May, Jun, Jul, Aug, Sep

Growing season metrics computed from NASA POWER 30-year climatology. GDD = Growing Degree Days. Suitability ratings are indicative only — microclimate, soil depth, drainage, and aspect will significantly affect outcomes. ALR-designated land requires ALC approval for non-farm uses.

## 9. Solar

### Solar Map Pack Layers

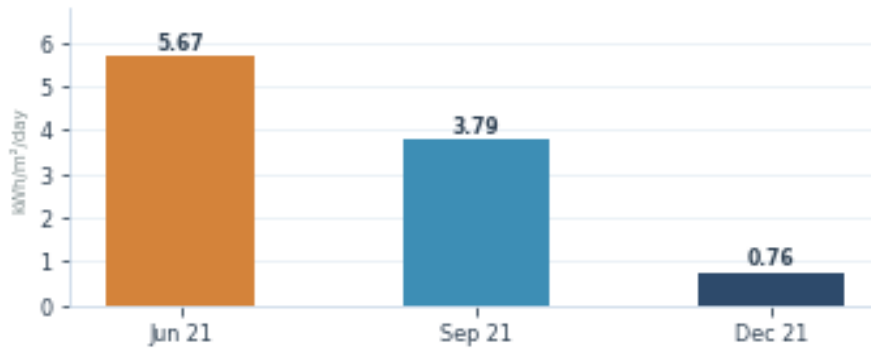
The KMZ map pack for this site includes three solar analysis dates — June 21 (peak summer), September 21 (equinox), and December 21 (winter solstice). For each date, four layers are included: PAR energy (mol/m<sup>2</sup>/day), SW horizontal radiation (Wh/m<sup>2</sup>), SW terrain-corrected radiation accounting for slope and aspect, and direct sunlight hours. These layers can be used to assess photovoltaic potential, passive solar building orientation, crop light requirements, and seasonal shading from terrain and canopy.

### Solar Context — Coastal Western Hemlock Zone

Coastal Western Hemlock zones receive moderate annual solar — cloud cover is the dominant limitation, not day length. South and southwest aspects can receive substantially more solar than north-facing slopes.

### Seasonal Solar Radiation (kWh/m<sup>2</sup>/day)

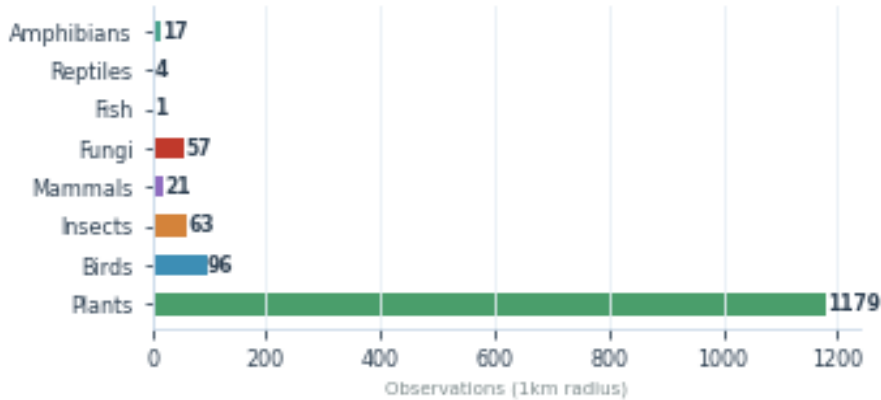
Month	Avg Radiation	Assessment
June 21	5.67 kWh/m <sup>2</sup> /day	High
September 21	3.79 kWh/m <sup>2</sup> /day	Moderate
December 21	0.76 kWh/m <sup>2</sup> /day	Low



## 10. Biodiversity

TOTAL OBSERVATIONS <b>1810</b> 1 km radius — iNaturalist	PLANTS OBSERVATIONS <b>1179</b> Research-grade
BIRDS OBSERVATIONS <b>96</b> Research-grade	

### Observations by Taxon Group (iNaturalist 1km radius)



### Wildlife & Aquatic Habitat Context

FWA Streams

50 segment(s): Pachena River (order 4); Unnamed (order 3); Unnamed (order 2); Clonard Creek (order 2); Unnamed (order 1); Clonard Creek (order 1)

Biodiversity data sourced from iNaturalist research-grade community observations within 1 km of site centre. Taxa counts are indicative — iNaturalist coverage varies by location and observer effort. Threatened species status per BC Species & Ecosystems Explorer (blue-listed = special concern, red-listed = threatened/endangered). A formal environmental assessment by a Qualified Environmental Professional (QEP) is required prior to permitting for projects adjacent to fish-bearing watercourses or within identified sensitive ecosystems.

# 11. Due Diligence Checklist

LAYER	STATUS	IMPLICATION
Agricultural Land Reserve	Not Mapped	No data available
FWA Watercourses	Present	50 stream(s) -- riparian setback likely
Nest Trees	Not Mapped	No data available
Wildlife Habitat Areas	Clear	None within site area
Regional District	Present	Regional District of Alberni-Clayoquot
Ecosection	Present	Vancouver Island Shelf
Mapped Aquifers	Clear	No mapped aquifer at this location
Water Wells	Present	9 well(s) nearby -- check setbacks
Forest Tenure	Clear	No active forest tenure
Floodplain	Clear	No mapped floodplain at this location
Crown Land Tenure	Present	9 tenure(s) nearby

## Notable Disclosures

- **FWA Watercourses**  
50 stream(s) -- riparian setback likely
- **Regional District**  
Regional District of Alberni-Clayoquot
- **Ecosection**  
Vancouver Island Shelf
- **Water Wells**  
9 well(s) nearby -- check setbacks
- **Crown Land Tenure**  
9 tenure(s) nearby

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## 12. Priority Actions

**1**

Commission a Riparian Areas Regulation (RAR) assessment — 50 stream segment(s) mapped within the site area.

**2**

Obtain Environmental Management Act permits before any works affecting mapped wetlands.

**3**

Commission a geotechnical assessment — soil type is urban fill or unclassified and bearing capacity is unknown.

**4**

Call BC 1 Call (1-800-474-6886) before any ground disturbance to locate buried utilities.

**5**

Engage a Registered Professional (RPF, PEng, or QEP as required) before commencing any regulated works.

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