

Boreal Wilderness Alaska at-a-glance



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Note: Use the latest Adobe Reader to view and print this document. Download at <https://get2.adobe.com/reader/>
Most images are high resolution for 200% or more magnification using zoom tools. Links are in blue.

property at-a-glance

Deeds Statutory Warranty & Quitclaim (Owner to LLC)

Current Owner 100% equity Boreal Wilderness LLC

Site Visits By appointment

- **Water & Wastewater** Alaska DEC Class C
- **Electric** Offgrid 4.4kW (20 Sanyo 220A watt) solar modules on two pole-mounted azimuth tracking arrays, quiet and carbon free energy. (Rebuilt 2014)
- **Battery Bank** 16 Surrrette S600 48 v/1200 amp hrs
- **Back-up Genset** 8kW Northern Lights, 2-2kW Hondas
- **Air & Ground Access** By air from Anchorage ~2 hrs to adjacent 2400+ft grass airstrip. By ground 300 miles/8 hr drive to McCarthy then 8.5 miles trail by ATV/vehicle.
- **Canopy Tour/Zip Line Course** 6 zip lines (45 to 650ft), 3 sky bridges (see images) and 2 ladders. The ACCT -standards-built canopy course has been private.
- **Note:** The property has only been privately occupied the month of March & May through September.

real estate

- **65 acre parcel** on the Nizina River bluffs near the center of Wrangell-St. Elias National Park. By ground 8.5 mile trail (~40 min) by ATV/snowmachine SE of McCarthy.
- **GPS** N 61° 22.237 & W 142° 46.602
- **Main lodge facility** w/commercial kitchen, great room, bathrooms, library, pantry, laundry, bedrooms, screen porch, arctic entries & decks
- **Ten (10+)** outbuildings
- **Self-sufficient utilities** w/commercial water & wastewater, solar power, backup gensets

personal property inclusions

- Vehicles & Related
 - 1984 John Deere 410B 4X4 Backhoe
 - 2005 Honda Rubicon 500cc ATVs (1)
 - 2013 Polaris Ranger Crew 800cc ATVs (3)
 - Enclosed ATV tandem axle trailers (2)
 - 2003 Honda Rancher 350cc ES ATV w/trailer
 - 2005 Ski-doo Skandic 440cc LT Snowmachines (2) with sleds (2)
 - Woodmizer LT28 Mill & 27 ton Hydraulic Splitter
- Fully furnished & decorated lodge with library, leather chairs and sofa, tables, chairs & beds, etc.
- All kitchen appliances, shelving & cookware, etc.
- Shop w/tools, equipment, hardware, etc.
- Assorted building materials and more.

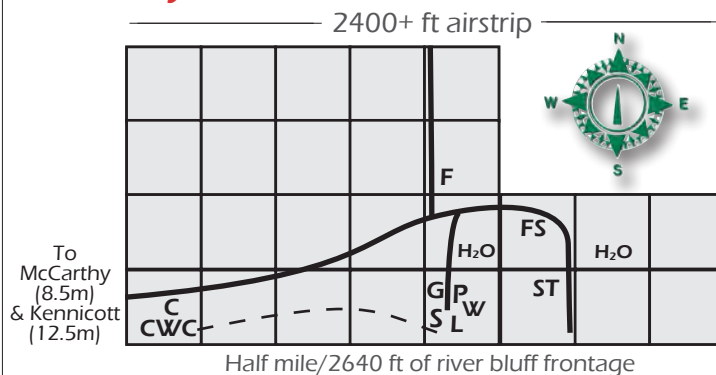
wrangell-st. elias park & boreal wilderness location



Canada's Yukon & Kluane National Park

Zoom in on high resolution map

site layout on 65 acres



L=Lodge, S=Shop, G=Generator Bldg, P=Pump House, W=Wood Shed, H₂O=wells, F=Fuel/Lumber, ST=Storage, FS=Fleet Storage, CWC=Canopy Tour Welcome Center, C=Cabin

--- Canopy (Zip Line) Tour on river bluff
— double track trail

- each sq is 330 ft x 330 ft or (26) 2.5 acre lots; total 65 acres
- two (2) wells are on the property; #2 is not currently used

See **Facility Operations & Documents Manual PDF** file for Record of Survey, Garmin GPS Map & Subdivision Plat.



Midnight Summer Solstice

Boreal Wilderness is a 65 acre private park inholding at the center of Wrangell-St. Elias National Park, largest national park in the US at 22,000 sq miles. In 1980 the Park was established and proclaimed a United Nations (UNESCO) World Heritage Site along with Glacier Bay National Park and Canada's (Yukon & BC) Kluane and Tatshenshini-Alsek National Parks. Together these four park units comprise the largest protected contiguous wilderness in the world; an immense 38,000 sq miles.

The facility was constructed as a potential lodge, but only occupied as a **private wilderness retreat**. The property is a **complete** turnkey package. Only food provisions and personal items are needed to step in. Over 40 years of passion has gone into developing the site and structures reflecting countless hours of planning, organization and hard work. The structure is a blend of a beautiful hybrid log/log slab on frame home that was constructed in 1978 and the major expansion during the years 1997 to present. An attractive design of log, timber frame and straw bale, the off-grid remote property is rivaled by few in site, scope & detail. Created in the ecological spirit with passive solar, carbon-free solar (PV) power and sustainable building practices.

In 2013, a commercial / private canopy tour (zip line) course was completed by **STEPS** of Ann Arbor, MI. STEPS is a professional vendor member of the **ACCT**, the industry association for challenge courses. The course is currently private. The 6 zip lines (from 45 to 650 ft), 3 sky bridges and 2 ladders traverse the tree tops along the Nizina River bluffs offering a unique aerial adventure with panoramic views.

Wilderness adventures abound in Wrangell-St. Elias and the other three adjacent Parks. Raft or kayak wild rivers, hike or climb mountains and trek glaciers or fish high mountain lakes. You'll feel the first to set foot!

Both water & wastewater systems are AK DEC Class C permitted. See [Water pg 20](#) & [Wastewater pg 21](#). On request **Facility Operations/Documents Manual PDF**.

Property deeds are **statutory warranty and quitclaim deeds**. See **Facility Operations & Documents Manual PDF** for Record of Survey, Garmin GPS Map and much more.

Link to Boreal Wilderness AK in Google Earth:

<https://earth.google.com/earth/d/1xBhMTmY8dBz3BlxsrJSYn1RFbn0ZsBD?usp=sharing>

Most images in this PDF are high resolution for zooming 200% or greater. Pages below and Web links are in [blue](#).

- 1 [Boreal Wilderness Alaska at-a-Glance](#)
- 2 [Cover Letter](#)
- 3 [Property Overview](#)
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Email for more information or for a personal meeting.
Explore the wilderness of Wrangell-St. Elias National Park!

Best regards,



L. Frederick Dure
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Boreal Adventures LLC
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907. 554. 1092
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South face Lodge and battery vault

a spectacular 65 acre site at the center of the Park with 2640 ft of river bluff

The 65 acre south facing site (20 acres are plateaus along the river bluff) is uniquely situated at the geographic center of the Park (zoom in [Wrangell-St. Elias National Park, pg 4](#)). Perched on the Nizina River bluffs, the site has outstanding views of hundreds of square miles of park wilderness including the Nizina River Valley and Chugach Range. Just to the north is Sourdough Peak (6200 ft) and its unusual rock glacier.

ecological and historical design & construction

The expansion of a unique homestead log home was designed by [Arkin-Tilt Architects](#) of Berkeley CA, an award winning ecological planning and design firm. The original log home and 1999 expansion blends elements of passive and active solar and sustainable design. It is an attractive blend of hybrid log and log slab on frame, timber frame and straw bale.

The design is reminiscent of early 1900s construction of the Kennecott Copper Mine era. Shed dormers, gables and wainscotting all reflect the look of yesteryear in the Wrangell Mountains.

interior floorplan

First Floor: Great Room, 3 bathrooms, library, kitchen, pantry, laundry utility, water heater utility, arctic entries, guest room.

Second Floor: 2 bedrooms

See [Lodge Floorplan, pg 12](#) and [Lodge Specifications, pg 13](#).

Great Horned Owl,
often a boreal
forest resident
by David Allen Sibley



Fall morning fog, old Nizina Bridge & Goodlata Peak (8166 ft) in the background

restricted road and trail access, a gated wilderness community

When driving a vehicle to Boreal Wilderness arrange two or three weeks ahead for your annual bridge key and permit for crossing Kennicott River and McCarthy Creek bridges. Contact Bridges LLC at 907.259.3261.

The drive from Anchorage to McCarthy is about 8 hours. Cross the **Kennicott River Vehicle Bridge**, continue the half mile to cross the **McCarthy Creek Vehicle Bridge**. This bridge is the gateway to McCarthy Creek South and Nizina wilderness communities. Follow the double track trail by ATV 8.5 miles further to Boreal Wilderness. See [Site by Ground Access, pg 15](#) for details and map with bridge locations.

adjacent airstrip

The adjacent 2600 ft long, 100 ft wide airstrip borders the north boundary (1650 ft) of the property. The flight to Anchorage is about 1.75 hours. There is a 3500 ft state airstrip at McCarthy (5 air miles). See [Site & Air Access, pg 14](#).

utilities, voice & internet

The property is fully solar powered with the microgrid providing 110v quiet and clean carbon-free power to Shop, Generator & Pump House buildings. Water & wastewater systems are Alaska DEC Class C permitted. (See [Water, pg 20](#) and [Wastewater & Greywater, pg 21](#).) Mobile service is by Copper Valley Telecom 4G LTE and Verizon. (See [Communication, pg 16](#).)



4.4kW arrays



wrangell-st. elias national park

4



The preeminent mountain wilderness; the “mountain kingdom of North America.” Number and scale loom large, magnified by splendid isolation. [Wrangell-St. Elias National Park & Preserve](#) is the largest national park and is the size of six Yellowstone. The Park has the largest assemblage of glaciers and peaks over 16,000 ft high. The park lets you sample most of Alaska’s wildlife and many historic mining sites. Hike its mountains, float its rivers, ski its glaciers or fly over its landscape and witness living geology. You feel as if you are the first to see such sights.

Four major mountain ranges meet in the Park, which includes nine of the 16 highest peaks in the U.S. The Wrangells are in the northern interior. The Chugach guard the southern coast. The Saint Elias rise abruptly from the Gulf of Alaska and thrust northward past the Chugach toward the Wrangells. And in the eastern end is the Alaska Range along the northern park boundary.

The Park is home to a variety of wildlife. Dall sheep and mountain goats in the craggy peaks. Caribou in the northern Wrangells. And moose, grizzly and black bear roam in most areas of the Park. The Copper River, forming the Park western boundary is the fourth largest Alaska river and hosts one of the largest salmon runs.

Summer wilderness adventures in the Park include hiking, river rafting, kayaking, mountain biking, and fishing. In winter the snowpack eases travel to areas normally difficult to reach in summer. Skiing, snowshoeing, snowmachining & dog sledding opportunities abound. Most areas of the park are less than an hour flight by bush plane from the airstrip at Boreal Wilderness. Sport hunting is allowed in the designated Preserve.

kennecott mines **national historic landmark**

Boreal Wilderness is located about 12 miles by ground to [Kennecott Mines National Historic Landmark](#). In the early 1900s copper was discovered. By 1911 the Copper River & Northwestern Railway had been built from Cordova to reach the remote Kennecott Copper Mine and community. The town and mill were abandoned in 1938 now replaced by adventurous residents and visitors. [Kennicott Glacier Lodge](#), a unique lodge facility perched on the mountainside provides visitor services. Kennicott and the alpine areas above offer outstanding opportunities for hiking and exploring. Mt. Blackburn (16,390 ft) and its glaciers and icefalls loom above.

park map & boreal wilderness location



Canada's Yukon & Klane National Park

Zoom in on high resolution map

united nations **world heritage site**

Wrangell-St. Elias, Klane National Park in Canada’s Yukon, Glacier Bay National Park & Preserve, and Tatshenshini-Alsek Park in Canada’s British Columbia were declared a [UNESCO World Heritage Site](#) in 1979. At 38,000 sq miles (24 million acres) the area is the world’s largest protected contiguous wilderness.



Historic Kennecott
Copper Mine
NPS Photo
Bryan Petryl



[**Boreal** your base camp for exploring 38,000 miles² of international park wilderness]



Deck & Lodge south face

ecological and historical design & construction

The structure was designed by [Arkin-Tilt Architects](#), Berkeley CA, an award-winning ecological planning and design firm. The building reflects elements of passive and active solar & sustainable design.

- south orientation
- most window glazing on south face
- thermal mass in stained concrete floor
- clerestory windows & ceiling fans
- high r-factors in walls, ceiling & floor
- use of beetle kill spruce logs and other local material

The overall design of the Lodge is reminiscent of the early 1900s construction of the Kennicott era. Shed dormers and roof lines reflect the look of yesteryear in the Wrangell Mountains.

The structure is an attractive blend of hybrid log and log slab on frame, timber frame and straw bale. The straw bales (oat) came from interior Alaska and were freighted on an ice road in winter 1998 with more than 300,000 lbs of material and equipment.

One of the most experienced straw bale builders in the US, Frank Meyer of Thangmaker Construction from Austin TX, led that construction during summer 1999.



North face main entry

dramatic cathedral ceiling

The 20 ft tall ceiling in the Great Room is constructed with scissor trusses milled from massive bridge beams. These beautiful 100 year old Douglas fir timbers salvaged from the old Nizina River Bridge years ago and protected from the elements have been beautifully reused. The hanging light fixtures were from the Kennecott Copper Mine. The bridge steel spans in the river below are still visible from the deck (and noted on [USGS maps](#), see pg 15); remnants from the early 1900s gold rush to Chititu, Rex and Dan Creeks just south of the Nizina River.

solar power – silence & clean energy

The Shop, Back-up Generator and Pump House is wired by buried conduit to the Lodge panel. A Trace-Xantrex (Schneider) SW5548 delivers up to 5.5 kW of sine wave power to meet demands. The benefit; **Silence**. You can **Hear** the wilderness. And **Clean**; No emissions. Use of a back-up generator for charging the battery bank has not been necessary since Sanyo modules were installed in 2014! (See [Solar Power](#), pgs 18 & 19.)



Great Room dining & scissor trusses





Two Vestfrost refrigerators on left, Garland range & hood in rear and 3 basin sink right of kitchen door

kitchen appliances

Fridge/freezer and chest freezer capacity enables extended stays during the summer without frequent provisioning. Tending a garden may help provide fresh vegetables. Internet ordering in summer is an option for getting things on Monday and Thursday mail planes. Summer mail may also include Friday & Saturday.

- (2) Vestfrost refrigerators/freezers are next to each other with adjacent handles that function as one fridge. Each has about 7 ft³ of fridge and 7 ft³ of freezer. The super insulated fridges are very efficient.
- The Conserv/Vestfrost chest freezer is in the north arctic entry where early summer temps are cool. The freezer capacity provides longer stays without grocery trips to Valdez, Anchorage or Palmer/Wasilla.



Kitchen pantry

commercial range & 3 basin sink

The commercial range is a Garland Starfire Sentry #5284. It has 6 burners (total 36 in wide), a griddle (24 in wide) and 2 commercial baking width ovens. All powered by propane. (See [Heating, pg 22](#) for propane info.) Each burner or stove can be individually lit to minimize fuel waste in powering pilots unnecessarily. The Garland is 60 in wide and has a full length integrated stainless steel shelf and backing and a commercial hood/ventilation system approved by the state fire marshal. (See [Fire Regulations & Prevention, pg 23](#).)

A 3 basin sink is located along the east kitchen wall. Above the sinks are stainless steel Elfa shelving for glasses & dishes.



laundry & utility room

The Staber 2000 model HXW/2304 washing machine is a real enhancement to life in the wilderness. It's located in the utility area along with related and cleaning items. The Staber:

- uses only 15 gallons of water for a full wash cycle, less than 1/2 of a conventional machine
- draws only 4-5 amps (at 110 volts) during brief wash periods; 1/2 to a 1/3 of conventional washers and a particular benefit for the solar electric system
- wash load is 16-18 pounds due to the unique agitation and balancing system of the top loading horizontal axis machine
- uses only 1 oz of biodegradable detergent per wash
- effluent (greywater) is dispersed 20 ft to grassy area



Lounge with
Kennecott Mine
light fixtures

Alaska History & System Manuals Shelves



Alaska Natural History & Renewable Energy Shelves



Great Room Dining





Bedroom 1 - Queen - Window to south



Bedroom 1 - Queen



Bedroom 2 - Double - Window to north



Bedroom 3 - Double - Window to north



Bedroom 2 - Double





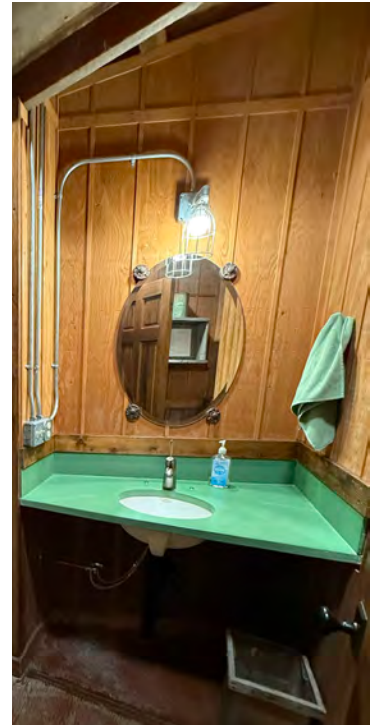
Bath 1



Bath 2



Bath 3



interior ambiance & decor

The Lodge ambiance reflects a historic look through a clean rustic decor. The features make the Lodge an **experience** to step into and a **journey** into Wrangell Mountain history.

- Great Room deep brown stained concrete floor
- 100 year old Nizina River Bridge timber scissor trusses
- full size logs and log slabs reflect the Alaska look & feel
- historic artifacts, photos and fixtures from the Wrangell Mountains copper and gold rush era
- beautiful straw bale wall in Great Room with truth windows showing the straw
- lounge coffee table made from a 100 year old wooden barrel found near the Nizina River
- lamps constructed from mining camp artifacts
- built in Library shelving made with diamond willow shelf supports, other bookshelf supports from black pipe
- massive stone fireplace with stove insert in Library
- historic hardwood floor in Library from the Kennecott Mine years ago
- wood stove wall backing in Great Room from the Kennecott Mine boiler furnace bricks
- a 100 year old barrel ring pot hanger above the kitchen log island found along the Nizina River
- collection of kerosene lamps
- and more!



Siberian Asters

the library & research desk

There are two bookcases with books and maps pertinent to Alaska and the Park. The Alaska & Yukon Resource bookcase is built on the log wall and is constructed from diamond willow. There is history, animal life, USGS and other maps, and related area literature. The other bookcase is alongside the rock fireplace and has solar and renewable energy, construction, sustainable building, wildflower, bird, and winter related books. The library has all you need to plan your next Park or Alaska adventure!



Historical artifacts and photos are displayed throughout the Lodge

furniture & furnishings

- 5 large distressed leather armchairs & sofa
- large 54 in round seating for 6-8, glass topped dining table made from beautiful 100 year old lap siding
- there are several other tables made from the same lap siding
- 4 log stools at counter
- log frame for second floor bed
- handmade second floor queen bed frame with shelves
- old McCarthy doors displayed in screen porch
- chairs and old dynamite box tables from Chititu & Rex Creek

exterior decor & landscaping

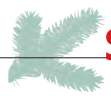
The exterior of the Lodge and outbuildings are tastefully signed with artifacts and implements of the old mining days. Hydraulic mining fittings, wrenches, shovels, miners picks, wood single trees (harnesses for horse drawn wagons) can be found on building exteriors and interiors.

The main north entry into the Lodge is accented by two large diameter green enamel mining lamps from Chititu Mine. An old miners pick and shovel cross on the log wall in the north main entry. A massive mining turnbuckle hangs from the southeast exterior.



Screen Porch with roll down Phantom screens

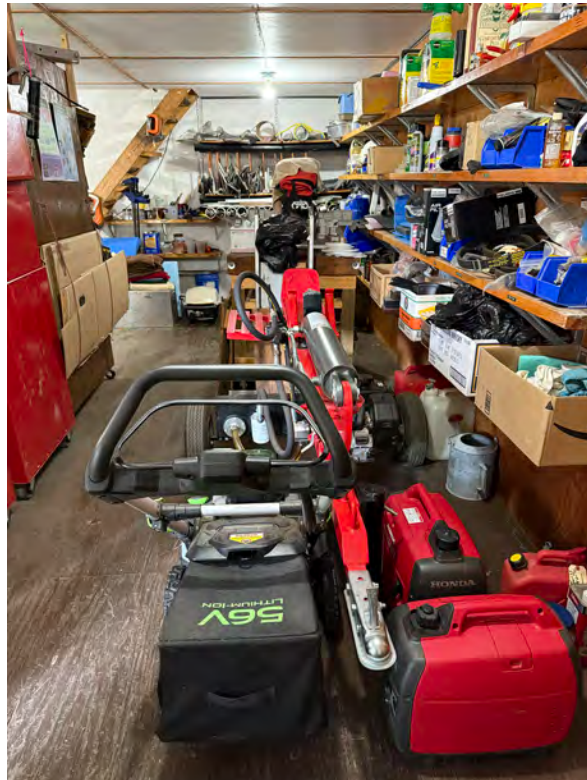
The north side of the facility is landscaped using over 100 ft of rail sections from the Copper River & Northwestern Railway, circa early 1900s. River rock from the Nizina River floodplain and many different wildflowers dominate the area near the Lodge. The south side has a grassy area for playing ball or frisbee under the midnight sun!



Left side of Shop with work bench, tools, wood stove. Attic has large assortment of wire



Right side of Shop for splitter storage & much more



Hardware supply in shop extension with electrical & more



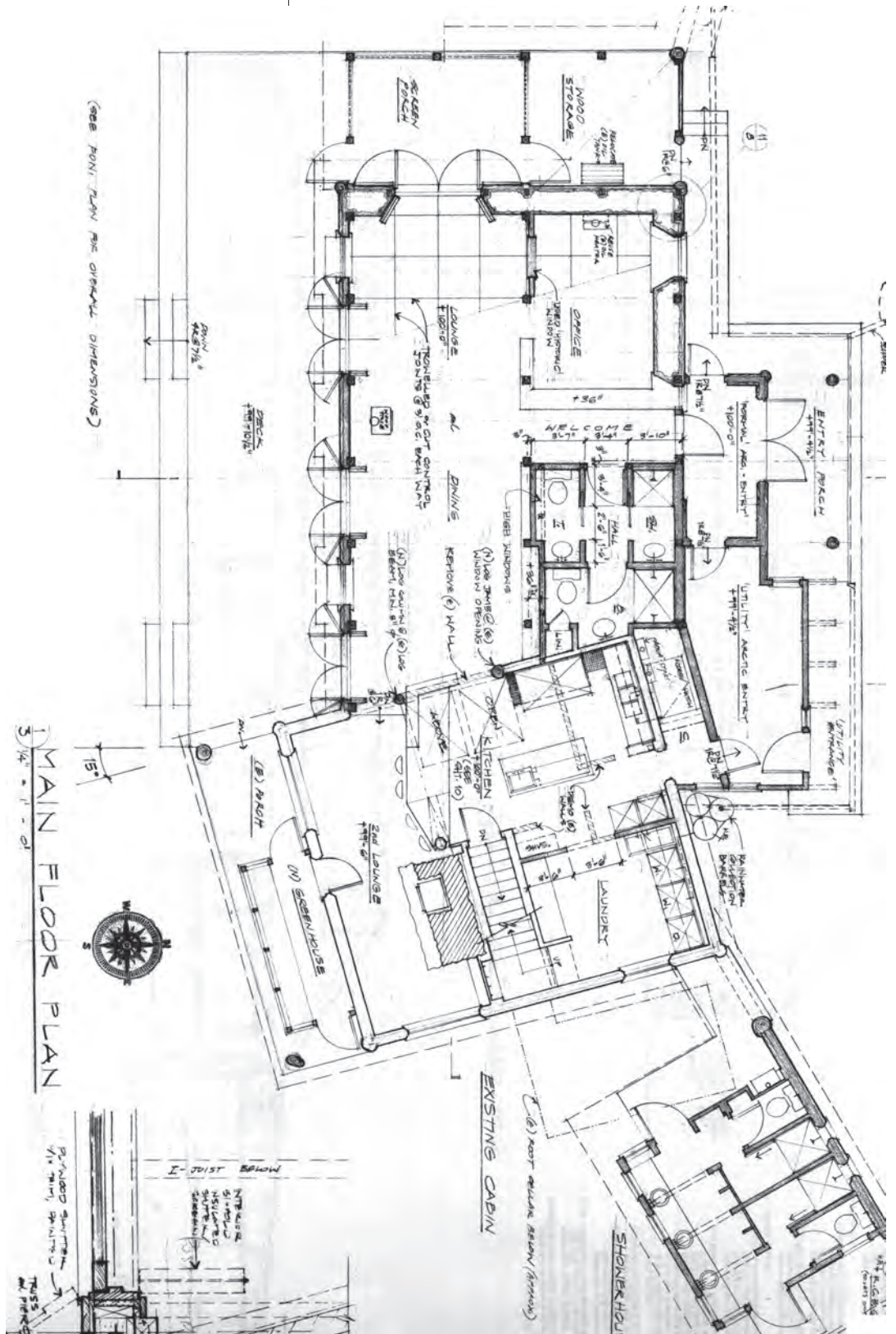
South deck for views & relaxation



Series wiring of 2 panels for 85.4v to charge controller and 48v battery bank



lodge floorplan



This layout is for general location of spaces on the first floor/ground level. Please note that an error in the long dimension of the original cabin exists: it is 30 ft with a 6 ft deck extension instead of 24 ft with a 6 ft extension. Actual appliance, interior wall and room/space placement as well as function may vary from those depicted above. For example, the kitchen appliances are arranged differently; so is an interior wall. The scale is no longer $1/4" = 1\text{ ft}$, it is now approximately $3/32" = 1\text{ ft}$ or just under .25 centimeter to 1 ft.



Sq Ft Breakdown per Type of Space*

Total Lodge ft² (heated, enclosed, open & covered deck, adjacent unfinished guest cabin) = 3500 ft²

Total Heated¹ (incl South Utility) = 2100 ft²

Total Enclosed² = 235 ft²

Total Open Deck³ = 480 ft²

Total Covered Deck⁴ = 334 ft²

Adjacent Unfinished guest cabin = 196 ft²

¹ Heated areas, within the building envelope

² Enclosed areas, utility or arctic entry areas, enclosed and integral to the building, but not heated

³ Open Decks have no overhead cover

⁴ Covered Decks have overhead cover, with some or all vertical wall

Sq Ft Breakdown per Room or Space

First Floor

- Great Room = 725 ft²
- Library/Lounge = 260 ft²
- Commercial Kitchen & Utility = 300 ft²
- Pantry/Laundry = 140 ft²
- 3 Bathrooms & Hallway
 - Bathroom 1: Bath w/large shower, basin & toilet = 54 ft²
 - Bathroom 2: Bath w/shower & basin = 27 ft²
 - Bathroom 3: Bath w/basin & toilet = 27 ft²
 - Hallway: =24 ft²

1 bedroom could be formatted in the northwest end of the Great Room. This area is used as a guest bedroom.

Arctic Entry/Utility Areas (enclosed)

- South Arctic Entry/Utility = 60 ft²
- North Arctic Entry (Main) = 60 ft²
- North Arctic Entry (Kitchen) = 115 ft²

Deck (o=open) & Porch (covered=c)

- South Main Deck (o) = 10 x 48 or 480 ft²
- West Screen Porch (c) = 9 x 12 or 108 ft²
- West Utility Deck (c) = 9 x 11 or 100 ft²
- North Entry Porch (c) = 7 x 18 or 126 ft²

* See [Lodge Floorplan, pg 12](#) for layout. **The foundation** is all concrete sonotube and stone/masonry set from 4 to 6 ft deep. All square footages are approximate. Note the long dimension of the original building is 30 ft with 6 ft deck extension, not 24 ft with 6 ft deck as shown on Floorplan.



Second Floor

The second floor can be reached either by an open stairway from the Pantry/Utility or from the Library.

- Master Bedroom 1: 200 ft²
- Guest Bedroom 2: 170 ft²
- Stairwell/Hallway/Closet: 16 ft²



View of Mount Holmes (7270 ft) from the Canopy Tour Welcome Center

lodge system operation manuals

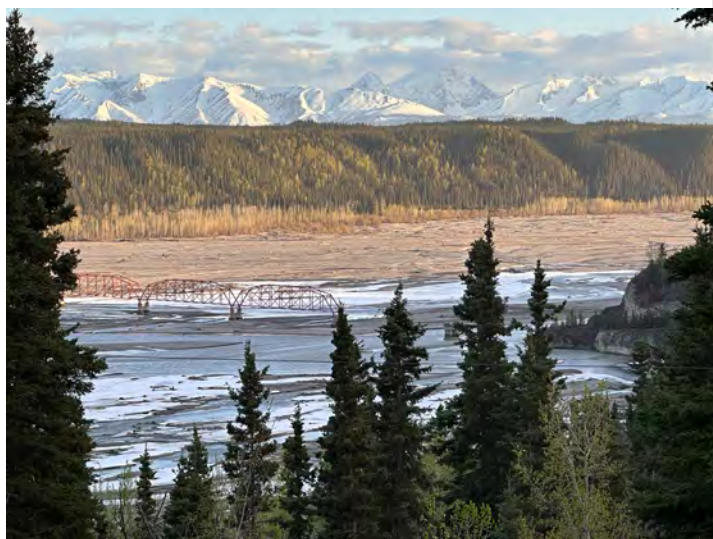
See the accompanying PDF file **Facility Operations & Documents Manual** with documents, checklists and schematics on the following:

- Water & Wastewater Systems
- Solar Power System & Back-up Genset
- Seasonal Operating & Maintenance Checklists
- Bears, Trash & Recycling
- Paint & Finish
- Property Survey, Garmin GPS Map & Subdivision Plat

Also, there are manuals on the solar power and plumbing systems in the Library and on the wall next to the inverter and solar charge controller.



Fireweed in the fall



Early May, south view from deck and abandoned Nizina River Bridge

a spectacular 65 acre site with half mile of river bluff frontage at the center of the park

The 65 acre south facing site is uniquely situated at the geographic center of the Park. It is along the southern boundary of the Nizina West Subdivision, a wilderness subdivision that was originally homesteaded in the early 1900s before the establishment of the Park in 1980. Perched on the Nizina River bluffs, the site has outstanding views of hundreds of square miles of park wilderness including the Nizina River Valley and Chugach Range.

Of the 65 acre tract, 20 acres lie along the south boundary with 2640 linear ft fronting the river bluff. About 150 feet below is the Nizina River accessible by a 5 minute foot trail or 10 minute ATV. Another 12.5 acres (1650 linear ft) on the northern boundary front the 100 X 2600 ft airstrip. The remaining acreage spans the distance between the north and south boundaries. (See adjacent Site Layout.) Vegetation in the boreal forest is predominantly white spruce, birch, aspen and willow. No permafrost on the south facing site.



Bluebells and many other wildflowers bloom from May thru July

adjacent 100 x 2600 airstrip

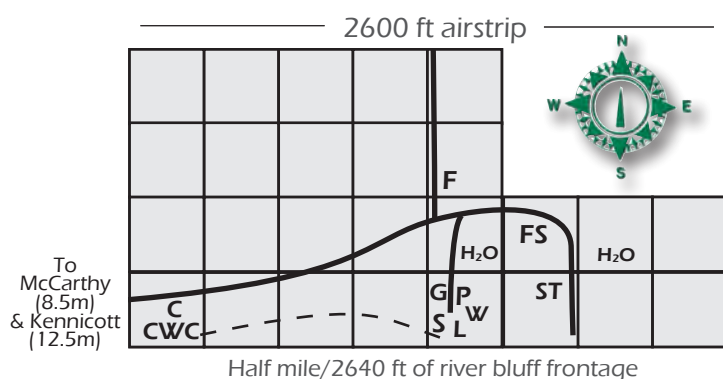
The adjacent 2600 ft long 100 ft wide airstrip borders the north boundary (1650 ft) of the property. The GPS location is **N 61° 22.237 & W 142° 46.602**. The flight to Anchorage is about 1.75 hrs. There is a state maintained 3500 ft airstrip at McCarthy only a few minutes by air from the Nizina.



Nizina homestead airstrip 100 ft x 2600 ft

Another airstrip is just south of McCarthy Creek ([zoom in page 15 USGS map](#)). This was the McCarthy airstrip years ago. The state does not maintain this strip however locals mow it and there is a windsock. The air taxi operator at McCarthy is [Wrangell Mountain Air](#). Wrangell Mountain Air has service to Anchorage and several daily flights between Chitina and McCarthy. There are also Monday & Thursday flights between Anchorage, Glennallen and McCarthy by [Copper Valley Air](#) and [Reeve Air Alaska](#). Call for more info.

site layout on 65 acres



See **Facility Operations & Documents Manual PDF** file for Record of Survey, Garmin GPS Map & Plat.



Grizzly and black bear are not uncommon

how to get to Boreal Wilderness by road & trail*

Important: Landowners must arrange in advance before arrival at McCarthy for the key to cross both Kennicott River & McCarthy Creek Bridges. Contact Bridges LLC at (907) 259-3261.

1) From Anchorage, take Route 1 North (Glenn Highway) to Glennallen, 180 miles ~3.5 hrs.

2) Right at Route 4 South (Richardson Highway) to Route 10 (Edgerton Highway), 40 miles, ~45 min.

3) Left (East) at Edgerton Highway to Chitina, 35 miles ~45 min.

4) At Chitina cross the Copper River Bridge, follow the McCarthy Road to **Kennicott River**, 60 miles ~3 hrs.

When you pick up the key and permit get directions to the Kennicott Vehicle Bridge (just downriver from the Public Foot & ATV Bridge).

5) Travel the .5 mile to McCarthy, 10-15 mins.

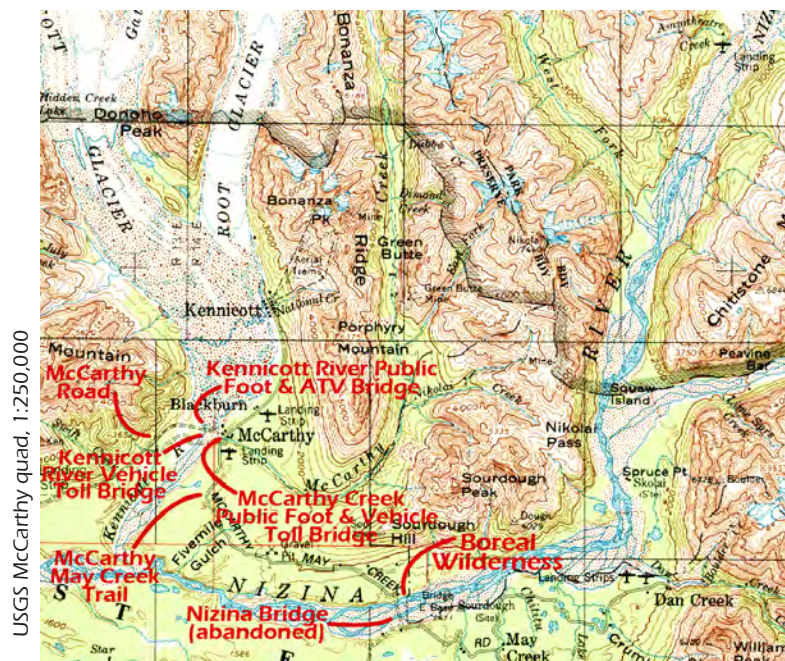
6) Cross the McCarthy Creek **Vehicle Bridge** and travel 8.5 miles (40 mins) on the Nizina Rd (aka McCarthy-May Creek or McCarthy-Nizina Rd).

7) Arrival at Boreal Wilderness.

*Landowners must contact in advance Bridges LLC at (907) 259-3261 to arrange your key for vehicle access to both Kennicott River & McCarthy Creek Bridges.

traveling the historic McCarthy-May Creek Trail

Traveling the 8.5 miles on the McCarthy-May Creek Trail (aka Nizina Road) to Boreal Wilderness is an adventure. McCarthy Creek Bridge is the gateway to the wilderness communities of McCarthy Creek South and Nizina.



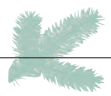
USGS McCarthy quad, 1:250,000

Zoom in on high resolution map

The McCarthy-May Creek Rd (aka Nizina Rd) is good the first 5 miles to 5 Mile Gulch. The remaining 4 miles not quite as good. Use judgment to avoid causing trail damage. Care for the road especially when soft during spring break-up and very wet conditions. Big heavy items and freighting loads are best sledged in March by snowmachine. In the Alaska bush you learn to live by and plan ahead with the weather and seasons. Mountain biking the trail is ~2 hours.



McCarthy Rd
Chokosna Lake
reflection



Lady Slipper

Voice & Data

Copper Valley Telecom offers 4G LTE (CDMA) data plans to voice subscribers. A local dedicated router/WiFi has proven worthwhile for online conferencing and other data needs. Verizon voice & data roam on McCarthy area towers. Other carriers do not have access at McCarthy/Kennicott.



Alpine hiking at its best looking up Chitistone River from Nicolai Pass



Hardy lichen colonize Sourdough Rock Glacier



View looking north from the Nizina River toward Sourdough Peak (6201 ft) & the Rock Glacier. Boreal Wilderness peeks atop the river bluff



Hiking nearby Sourdough Peak Rock Glacier



Late evening light on Goodlata Peak (8166 ft)





Pump House with
3 key boxes (lower left)

There are **10** outbuildings in the Boreal Wilderness compound. Seven (7) are noted below. The **eighth** building is an insulated frame 12 x 16 Cabin, the **ninth** is Fuel Shed (60 ft²) and **tenth** is the [Canopy Welcome Center](#) (16 x 24 timber frame w/concrete sonotubes).

1) Unfinished Guest House: adjacent to the Lodge with boardwalk & deck.
(See [Wastewater & Greywater](#), pg 21 for photo/info, and [Lodge Floorplan](#), pg 12 for layout)
Size: 14 x 14 ft, 196 ft²
Structure: 2 x 6 frame & log
Foundation: Concrete sonotubes

2) Shop: about half of the Shop area is insulated for winter heating using an 1898 Cole wood stove.
(See [Shop & Other](#), pg 11 for interior photos)
Size: 24 x 36 ft, 864 ft²
Structure: 2 x 6 & 2 x 4 frame
Foundation: Creosote poles & concrete sonotubes

3) Back-up Generator Building
(See [Solar Power](#), pg 19 for interior photos)
Size: 12 x 12 ft, 144 ft²
Structure: 3 walls straw bale, 1 wall 2 x 4 frame
Foundation: Concrete sonotubes



Back-up Generator Bldg,
straw bale at 3 sides with
framed 4th wall

4) Pump House

(See [Water System](#), pg 20 for interior photos)

Size: 12 x 12 ft, 144 ft²

Structure: Frame

Foundation: On elevated 1 ft deep sand bed with green 4x6 timbers (to support potential 8000 lbs of water)

5) Wood Shed

Size: 16 x 20 ft, 320 ft²

Structure: Log

Foundation: Concrete sonotubes



6) Fleet Storage

Size: 20 x 28 ft, 560 ft²

Structure: SteelMaster

Foundation: Concrete perimeter w/framed endwalls



Shop and Back-up Generator Bldg

7) Storage Building

Size: 20 x 30 ft, 600 ft²

Structure: 2 x 6 frame

Foundation: Concrete piers



For outbuilding locations see Site Layout on [The Site & Air Access](#), pg 14.



4.4 kW azimuth tracking arrays

quiet & clean power!

Quiet. You can hear the wilderness. **Clean.** No burning of fossil fuels and no carbon emissions.

Efficient. With almost limitless sunshine and daylight during Alaska summers, power is being produced most of the time as the optical trackers follow the sun azimuth. **Almost maintenance free.** Check battery levels every two weeks, take hydrometer readings of the battery cells each summer.

The compound is powered by a 4.4kW, two-10 module (20 total) azimuth tracking arrays. The Sanyo 220A modules are wired 2 in series for a total of 85.4VDC & max current 51.7A to the Outback SCC.

The Sanyo 220A modules are 17.4% efficient and are incredibly effective at harvesting power in low/diffused ambient light. Since installation in June 2014, **no back-up charging of the batteries** has been necessary!

The arrays are pole-mounted 75 feet from the Lodge. When the drive systems are activated, optically track the summer azimuth 270 degrees from northeast to northwest, then return automatically to NE for sunrise. The array frames, azimuth drive heads, controllers and optical sensors are the latest 2014 generation from Array Technologies. Near June 21 summer solstice there are over 19 hours of potential sun. The azimuth trackers increase power production by about 40%.



Battery vault

48v DC to 110v AC conversion

A Trace-Xantrex (Schneider Electric) SW5548 - 5.5kW inverter provides true sine wave power. Power is converted from the 48 volt DC battery bank to 110 volts AC for the entire facility. Operating sensitive computer related equipment is no issue. Greater AC power delivery can be attained by installing stackable component inverters as those made by Outback.



Trace/Xantrex SW5548 inverter/charger & Outback controller

An **Outback FLEXmax 80** solar charge controller (SCC) charges the battery bank. The maximum power point tracking (MPPT) controller is very efficient in harvesting the maximum amount of power from the Sanyo modules. The MPPT is especially beneficial in areas of fast moving clouds, diffused light and changing solar conditions.



A **Trimetric 2025** power monitor is located on the kitchen wall where real time system stats are easily viewed. Stats include net power production (power produced less power used), system voltage, percent of battery remaining and other functions that can be programmed.

The PV system is surprisingly straightforward, minimally demanding and enjoyable to learn & maintain.



Array junction box, 10 modules w/2 wired in series on a DC breaker

the battery bank & backup generator

Ample power is stored in a 16 Surrrette S600 battery bank, a total of 1200 amp hours (Ah) at 48 volts DC. Two strings of eight 6v/600 Ah batteries. Generally, more power produced each day than used even with light overcast when solar radiation is less.

With efficient appliances, PV modules and conservation, it's possible to operate on battery storage for extended periods of rainy weather. By that time the battery bank may be nearing 50%, time to run the 8kW Northern Lights diesel genset to recharge the bank. Avoid discharges more than 50%. Battery life is dramatically extended by keeping discharges shallow 10-30%. Never seen greater than 25%.

A charging option is the Honda EU2000i watt gas generator. It can be plugged in at the main genset panel and backed to the inverter/charger to charge at 16 amps 110v ample to boost batteries.

The Trimetric monitor on kitchen wall shows battery percentage remaining, battery voltage, amps out and in at 48v. If inflow and outflow of amps (which is often) amps indicate net.

A transfer switch above the inverter bypasses the inverter and battery bank to run the facility off the genset if needed. Genset use for charging has not been necessary since 2014 with the solar upgrade.

At the end of each summer the batteries are charged to float stage. Charging batteries to float with solar is far better than using a genset. The Outback charge controller indicates the charge stage of the batteries.

Preparing for summer departure the batteries are charged to float stage. Arrays are pointed to true south remaining switches and breakers are OFF to ensure the system is dormant. The winter cap (blue-board) is placed in the vault. Fully charged batteries winter fine. Shutting the electric down is the last thing to do before season departure.



the facility electrical grid

The facility 110v wiring is all within 1/2" EMT or 3/4" PVC conduit. Lodge wiring by Toklat Electric of Anchorage. The Back-up Generator and Shop buildings are wired to the Lodge panel with buried PVC conduit and single conductor runs of #2 and #4 AWG. The Pump House is wired to the Lodge panel using #10 Romex direct burial cable, with a dedicated run for the submersible pump. You can plug into quiet solar power at 3 outbuildings, Pump, Generator and Shop.



Control panel for 8kW Northern Lights diesel backup genset



Array junction box, 10 modules w/2 each wired in series on a DC breaker



Inside Generator Bldg, 8kW genset

operations/procedures & information manual

The solar/electric system operations and checklists are in the **Facility Operations & Documents PDF**. The photovoltaic system is almost maintenance free. Caring for the batteries by checking/adding distilled water, equalizing batteries once a month (overcharging to equalize cell voltage) and take summer hydrometer readings.





AK DEC class C commercial water system

The water and wastewater system are approved by the AK Dept of Environmental Conservation (DEC) as a Class C system. Water is produced from a drilled well about 250 feet north of the Lodge. Two 500 gallon storage tanks (only one is used), a jet pump and two pressure tanks provide water to the Lodge.



In summer the water is routed through Big Blue with a 2 micron filter and into the left storage tank. The jet pump pressurizes the line to the Lodge. Water system is drained and facility closed for the winter.

The facility has been summer use only except for a March stay. A thermal blanket closes off the Great Room to make space heating easy and quicker in the original cabin area. March stays are awesome and kept simple to enjoy the equinox, aurora, snowshoeing, skiing and snowmachining.

Water quality is approved however the water has 17 grains of hardness (calcium carbonate). There is little staining in fixtures and feeling of hardness. If desired a water softening system could be considered.

The hot water lines in the Lodge leading to the two Navien on-demand heaters each have a hexameta-phosphate filter prior to the units. These keep the calcium carbonate from precipitating out of the water when heated. The filters cost \$35 each and are usually replaced once or twice during the summer/fall season.

water system statistics

- **Date Wells* #1 & #2 Drilled:** 3/11/97
- **Driller:** Bill Hood & Sons, Wasilla, AK
- **Water Line Installation:** Bob Hamann, Hamann Construction, Eagle River, AK
- **Plumbing Installation:** Steve Hanson, Tundra Plumbing, Anchorage, AK
- **Well Depth:** 165 ft
- **Well Diameter:** 6 inch
- **Well Yield:** .7 to 1 gpm
- **Static Level:** Aprox 27 ft from top of casing
- **Well Storage:** Approx 200 gallons
- **Well Recharge/Recovery:** ~40 gph 5 hrs to static level
- **Submersible Pump:** Grundfos Soft Start 1/2 hp, 115v, 9A
- **Geology:** Soil & sand to 36 ft, fractured shale 36 to 165 ft
- **Water Quality/Analysis:** Approved by Alaska DEC
- **Water Hardness:** 17 grains
- **Alaska DEC Permit #299053**



Pump House Equipment

- Two 500 gallon storage tanks with hi & low floats for auto submersible pump operation for one tank (only one in use)
 - Two 30 gallon pressure tanks, Pump House & Lodge
 - 1/2 HP jet pump in Pump House pressure line to 30-50 psi
 - Pump protector, float relay, well pump breaker box
 - Surface water line take-off potential for future summer use
- See PDF File **Facility Operations & Documents Manual** for checklists and schematics.

*There are two (2) wells on the property. Well #1 is facility supply Well #2 is at distance and not developed.

class C commercial wastewater system

The wastewater & water systems are AK Class C DEC. The soil structure was excellent for installation of the septic system. Sandy soils indicated a good percolation rate. The soil log indicates top 36 feet to be primarily sand and light gravel with a top soil of about 2 feet.

The septic tank is a two compartment 1500 gallon that leads into a leach field that is constructed using 35 Infiltrators in a 5 row system. The leach field is located just south and east of the Lodge and is covered by grass. The 5 monitor tube caps are just visible.



Calypso
orchid



potential guest house

The exterior adjacent building was built for a guest house or additional showers. The structure is 14x14 (196 ft²) and has a location for an on-demand water heater. Water could be provided by a surface summer line from the Pump House.

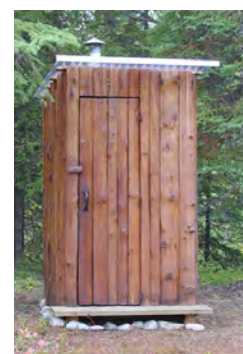
wastewater system statistics

- Class C commercial wastewater & water system
- AK Dept of Environmental Conservation (DEC) Class C permit #299053, issued from Wasilla DEC District Office
- Engineered by Lou Butera, Eagle River Engineering, Eagle River, AK. Constructed in 2000-2001 by Bob Hamann, Hamann Construction, Eagle River, AK
- 1500 gallon 2 compartment septic tank; 36 x 15 ft (540 ft²) leach field
- Soil percolation rate of 2.8 mins/inch to a depth of 12 feet, predominantly sand

See accompanying PDF file **Facility Operations & Documents Manual**.



EnviroLoo dehydration
toilet



The noble outhie

septic system care in the bush & the noble outhouse

The current condition of the septic system is excellent. Care, few persons on site, summer use of the system only, no washing machine effluent, and the outhouse / eloo ritual. All bodes well for system perpetuity.

Since the wastewater system was installed in 2000-2001, there has been no fecal matter or toilet paper flushed into the tank. Also, no washing machine effluent, kitchen scraps or grease. Strainers in the 3 basin kitchen sink stops food scraps.

There are two outhouses a short walk from the Lodge. One is the traditional outhouse. The other is an evaporative/dehydration unit EnviroLoo (elootoilet.com), which dries the waste making it safe for disposal. Use of an outhouse and EnviroLoo for solid waste eliminates the need for pumping the septic tank.

passive & active heating systems

The Lodge is designed as a passive solar structure. South facing windows allow summer sun to warm the thermal mass of the Great Room concrete floor. Opening a clerestory window provides ventilation when desired. There are also Hunter ceiling fans in the Great Room.

The wood stove warms the Great Room on chilly mornings in May and late August and September.

There are two Osburn 2400 wood stoves which are lined with firebricks for thermal mass. Both stoves have a plate glass door for loading and viewing. One stove is an insert in the rock fireplace in the Library (adjacent photo) and the second is center of the Great Room. Output is 12,000 to 50,000 btu at 75% efficiency.

A Rinnai EX22CTP propane space heater in the Library supplements the wood stove in March. The Rinnai is an impressive space heater. The variable speed fan is quiet and adjusts according to set temperature. Output is 8,200 to 20,700 BTU.



Hydraulic splitter at work

wood shed

Supply in the Shed is full. Windfall and dead standing spruce is available for cutting over the 65 acre tract. Use of the chain saws, one or both ATVs and trailers expedite the job. With two operating the hydraulic splitter (one splits one brings the wood and stacks) a lot of wood can be split. See [Outbuildings, pg 17](#).



The Alaska resource library; all the information you need to plan your next wilderness adventure!

propane, fuel and solar power

There are a few 100 lb propane tanks kept on hand along with several smaller tanks. Propane is used for on-demand water heaters, range/stove and Rinnai space heater. Supplementary space heating with the Rinnai is usually during March visits. Most space heating is with wood.

Propane is stored behind the Shop under an overhang. With only a few people on site in the summer, no more than a few tanks are used each year. A McCarthy local refills.

Minimal diesel #1 fuel is used. Only a few 5 gallon containers of any fuel are filled in advance to avoid running out. Local vendors provide unleaded gas and other fuels.

With ample solar power and a battery bank there are a number of battery powered appliances including an EGO lawn mower, trimmer, shop tools and equipment.



state of Alaska fire regulation compliance

The Lodge was designed to minimize fire risk and stop a fire immediately if one occurs. Boreal has complied with AK State Fire Regulation including approval of the straw bale component of the structure. The Garland Starfire Sentry commercial range and hood ventilation system was installed by a certified installer as per the state fire marshal. Requirements have been met for residential use. To obtain a commercial permit the fire suppression must be installed in the range hood by a certified installer.



New 2025 Navien on-demand water heaters.



Moose calves at the overlook Boreal Window

fire prevention

Several fire extinguishers are placed at the kitchen and near the wood stoves and propane appliances. In addition there is a fire hose spigot in the utility area next to the kitchen doorway and by the on-demand Navien water heaters.

Gas is stored at the Fuel Shed while diesel #1 is kept in the Generator Bldg. Propane tanks are kept behind the Shop. Two 100 lb propane tanks provide fuel for the kitchen range and water heaters. Tanks are under an open air cover. All propane lines are black pipe as per regulations.

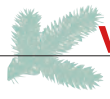


Coyote on the Nizina River floodplain



Late fall colors from the south deck





vehicles & personal property



vehicles & related equipment

There are a number of vehicles and related items that are included with the property.

- **1984 John Deere 410B 4x4 backhoe**

Skandic 440 LT snowmachines

- **One (1) 2005 Honda 500cc Rubicon ATVs**

- **Three (3) 2013 Polaris Ranger Crews**

- **Two (2) Enclosed dual axle ATV trailers**



- **Two (2) 2005 Ski-doo Skandic 440cc LT Snowmachines.** Like new with 4 sleds.

- **One (1) 2003 Honda 350cc ES Rancher**

- **2011 Woodmizer Sawmill & hydraulic splitter**

tools & equipment and a hardware "store"

The Shop is well provisioned with almost all mechanic, woodworker, hand and power tools. There are two like new large roll-around tool chests well organized and clean with most hand tools. Power tools include skill and worm drive saws, corded and battery drills, reciprocating saw, table saw, jig saw, sanders, planer and more. Also, two Stihl chain saws.

The Shop comes with a hardware store. A large nail, bolt/nut, screw, washer, Simpson bracket and other items supply is maintained on an extensive (500 linear feet) organized shelf and bench system. As one hardware size is depleted, is added to the list for re-supply. Practically everything is available to do a job and do it right. The Pump House has a well organized supply of all types of fittings along its own workbench. The electrical department has a large assortment of wire sizes and types, electrical tools and Fluke multimeters, circuit breakers, outlets, switches and boxes, split-bolts, spare solar parts, and much more. All parts are organized to make finding them intuitive and quick.

A valuable construction tool for the bush is the 2011 [Woodmizer LT28](#) bandsaw sawmill. The mill proved its worth in milling much of the material for the timber frame building. One can learn to mill up cants and rough cut dimensionals.

See [Shop & Other](#), pg 11 for photos.

kitchen fixtures

- the kitchen and pantry/laundry area has InterMetro stainless shelving throughout
- a large log island in the center of the kitchen with stainless steel top is a nice centerpiece
- above the island is a unique pot rack, originally a large metal band from a massive wooden barrel
- a large collection of pots, pans, cooking implements and utensils is at reach
- Garland 6 burner, griddle and 2 oven commercial stove
[See Kitchen & Utility](#), pg 6
- two Vestfrost refrigerators & Conserv chest freezer



1984 John Deere 410-B backhoe

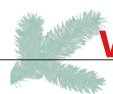
yard & garden implements, etc

- All yard hand implements
- Cordless electric lawn mower & trimmer
- Power auger
- 2.5 ft³ cement mixer & hydraulic wood splitter
- Wheelbarrow & a small ATV trailer that doubles as a large wheelbarrow
- and more!

miscellaneous

There are other supplies normally kept on site like dimensional lumber, insulation, roofing and more at the Storage Building. There is even a large stack of beautiful 100 year old lap siding to construct more tables. Having the tools and materials on the site to do a job and know where they are is important.





bears

Bears are often seen and sometimes encountered. Boreal Wilderness has never had a problem bear, however it's not unusual to have a bear in the yard. In the summer sows and cubs occasionally stroll the site and a few practice climbing the spruce trees. Juveniles and adults come by as well. Some are nosy. There is no shortage of bear stories at Boreal.

Maintaining a clean and tidy site is important for hosting well behaved bears. There are procedures for managing all waste and recyclables. It is the bears environment, we're the visitors. Mostly black bear are in the area, however

at least once a summer the larger grizzly is seen. Bear bars and barricades are installed on all doors and windows so in absence one can feel confident that bear entry is unlikely. Rarely the bear bars are unmounted from the doors and windows.



Wishbone as a cub 2007

wildlife, birds & wildflowers

The Park has an abundance of wildlife so not unusual to see moose, lynx, coyote, and bear during the summer. Bird life includes both resident and migratory. The bird books in the Library are tabbed at the species of bird sighted. Downy & hairy woodpeckers, robins, black-capped chickadees and gray jays are seen. The varied, Swainsons and hermit thrushes distinctive songs reverberate throughout the boreal forest during the long summer days of breeding and raising broods.

Larger predatory birds include bald and golden eagle, great horned owl, and rough legged hawk. Binoculars are kept handy.



Varied Thrush

From early June through July the wildflowers are everywhere. The south yard has : lupine, dwarf dogwood, goldenrod, Siberian aster, bluebell, northern yarrow, tundra rose, paint brush, lady slipper and more. Berries usually out in August: raspberries, high and low bush cranberries, currants and cloudberry.

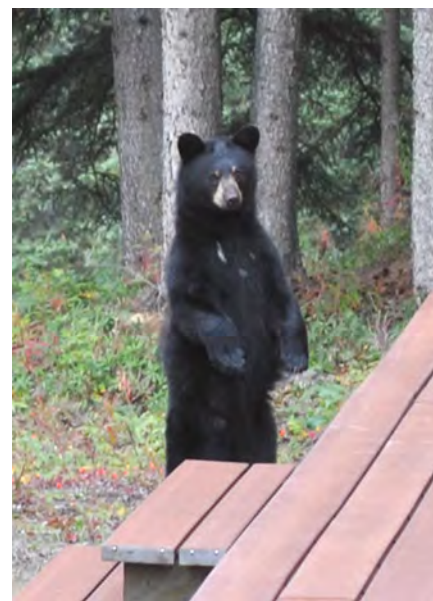
boreal forest

The area is considered subarctic of interior Alaska. The boreal forest predominates from river bottom to about 2500 feet in elevation. White spruce, along with aspen and paper birch is widespread on this generally well drained site. Black spruce are few. The site elevation is about 1500 feet.

climate & weather

Generally summers are dry and hot. Much of the Park is in the rain shadow of the Chugach Range where most storms and moisture from the Gulf of Alaska are hindered. Rainfall in the summer is normally about 1 to 2 inches per month. However, not unusual to have periods of summer rain.

Temperatures during the summer vary widely. Early May can have near freezing morning temperatures with highs in the 60s °F. By June and July lows are usually in 50-60s and highs in 70s to 90s. Late August and September can bring morning freezes, yet highs in the 60s or low 70s. Autumn colors begin to appear in mid to late August and by the second week of September are near peak. Fall colors are spectacular.



Wishbone as an adult 2010

The winters are usually dry and cold. However, perhaps due to global warming / historic trend, winters have been warmer. Over the past several years, extreme cold (-30 to -35°F) has been rare. More often periods of -20 to -25°F seem to occur with low temps near zero more the norm. Winter snow pack is usually 3+ feet.

By March twelve hours of sunshine bring glorious days in the teens and nights to -25°F at lowest. The Northern Lights, stars and planets make March extraordinary in the Park. The areas to explore by snowmachine, skis or snowshoes are unlimited.





discovery of copper & gold!

Note: The Nizina Mining District spanned the area across the river from Boreal Wilderness. Sourdough City, a center of commerce, was located just across and upriver from Boreal at the mouth of Young Creek. Chititu, Dan Creek, and May Creek are easily found on USGS maps or the popular DeLorme Alaska Atlas. In the early days, the Nizina mining activity was in the shadow of the massive Kennecott Copper Mine development.

1898 A party formed by R. F. McClellan & James McCarthy (for whom McCarthy is named) located, with the help of Nicolai, copper deposits around Nicolai summer camp at the mouth of Dan Creek. Nicolai was chief of the Ahtna Athabaskan natives.

1900 The discovery of the Bonanza copper deposit on Bonanza Ridge near Kennicott.

1900-1902 Stephen Birch purchased the Bonanza copper claim from original claim holders, following lawsuits concerning conflicting ownership. Funding and development of the richest copper deposit ever began. Prospectors came into the country looking for more copper and gold.

1901 The discovery of gold and copper at Dan Creek, it had the longest sustained gold mine production of any in the region. The largest copper nugget weighed in at 3/4 ton was found at Dan Creek. Rex Creek, a tributary of Chititu Creek, had a similar history but with no copper found, just gold.

1902 Gold strike at Chititu! It created a modest stampede in 1902 & 1903. Robert Blei grubstaked several prospectors to search for copper in the District, but instead found gold at Chititu. Charles Kopper, Frank Kernan and Blei gained control of Chititu, Rex and White Creeks.

1902 A road tramway (rail) was constructed between the Chititu mining camps and the digging sites. The narrow gauge tramway spanned 5 miles.

1903 Gold production totaled \$135,000 in the Chititu area. Sourdough City, at the mouth of Young Creek, became the base camp for development up Chititu and Rex Creeks. All mining was by pick and shovel until 1907.



Exploring the old Nizina Post Office, nature reclaiming the structures

1907-1908 The first hydraulic mining operation was installed at Chititu. A lighting plant, machine shop, water pipelines and telephone line were put into operation.

1907-1910 Construction of Copper River & Northwestern Railway. ([Click for a 17 min video of building the historic railway.](#)) A monumental effort, this train crossed 196 miles of wilderness from Cordova to Kennicott to transport copper from the mine.

1910 \$40,000 gold production at Chititu Mine, 50 men employed for the new hydraulic operations.

1914 The Nizina River Bridge was built by the Alaska Road Commission and was the most expensive bridge project ever undertaken by the State. It provided an all season haul road where previously only a winter road allowed access across the river. The bridge was destroyed 3 times by flooding and ice and was rebuilt 3 times. The bridge washed out for the last time in 1935 but was made marginally crossable until the early 1970s. Blei goes bankrupt due to drop in gold production and sold his claim for \$10,000.

1924-1930 The head base camp for mining activity at Chititu and Rex Creek was moved from Sourdough City (mouth of Young Creek at the Nizina River) to Nizina and the Nizina Post Office (see photo above) was established to serve Dan, Chititu, and Rex Creeks. The old post office has fallen down and disappeared into the earth.

1930-1950 Production continued at Chititu, but with modest yield. Large gold yields never materialized.

1938 Kennecott Copper Mine shuts down and the last train out leaves on short notice. Workers and their families walk out with just their personals.

1952 Chititu mine closes. Caretaker Walter Holmes remained at the site until his death in 1964. Mt. Holmes, across from Chititu, was named after him.





Ahtna natives & the park



Chief Nicolai of the Ahtna
1867-1918

area prehistory – the ahtna natives

Humans are believed to have first occupied interior Alaska about 10,000 years ago and moved into the Copper River region, and its tributaries (the Chitina and Nizina), 2,000 years later. The natives that settled in this region were known as the Ahtna.

There were very few permanent settlements in the Copper River area prior to the 20th century. The Athabaskan Ahtna natives had permanent settlements at only two locations, Batzulnetas (Nabesna Road area in the northern park) and Taral, just downstream and across the Copper from Chitina. The Ahtna congregated at the settlements during the long cold winters into early summer for the salmon runs then move further inland up the Chitina, Nizina and other rivers in mid to late summer in search of game. The Ahtna occupied seasonal camps within Nizina drainage, the most well known being Chief Nicolai at the mouth of Dan Creek. Nicolai had found copper nuggets in the area and fashioned implements and other items. Wealth was measured by copper possessions. The Tlingit and Eyak coastal natives (that lived along the north Gulf of Alaska coast) traded with the Ahtna for copper artifacts at least 1400 years prior to arrival of white men.



The mountain kingdom

wrangell-st.elias national park history

Efforts were made in the 1930s to preserve the Wrangell Mountain region long before the Park was established in 1980. Recommendations by the Alaska Legislature to President Roosevelt in 1940 were made to establish the region as a National Monument. World War II intervened and the issue was tabled. In 1959 Alaska was given the right to select 103 million acres under the Statehood Act. This prompted Alaska natives to file their land claims based on aboriginal use and occupancy.

In 1969 Interior Secretary Udall responded to their action by denying further state selections until the native claims issue had been resolved. Congress eventually complied by passing the Alaska Native Claims Settlement Act (ANCSA) in December 1971. ANCSA authorized the Interior Secretary to withdraw up to 80 million acres for study in the inclusion of the national parks, forests, refuges, or wild and scenic rivers. This provision led to the Alaska National Interest Lands Conservation Act (ANILCA) placing the withdrawn lands in federal protection. About 13.2 million acres comprise Wrangell-St. Elias National Park.

bibliography

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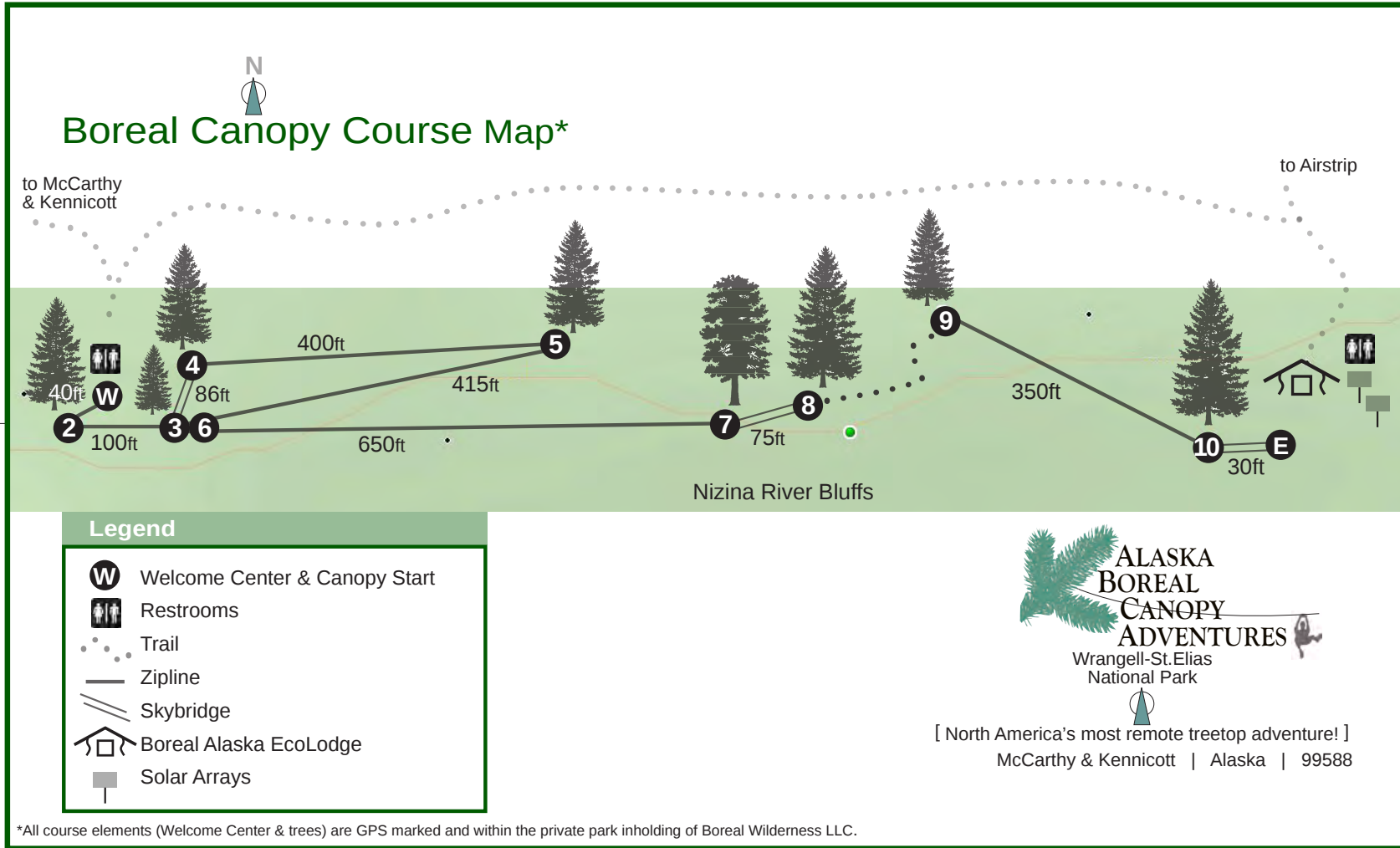
The Copper Spike. Lone Janson.

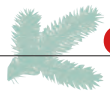
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Cordova to Kennecott, Alaska. Cordova Historical Society and the National Park Service.







canopy tour & zipline photos



Sky Bridge 1



North face
Canopy Welcome Center



Interior of Welcome Center



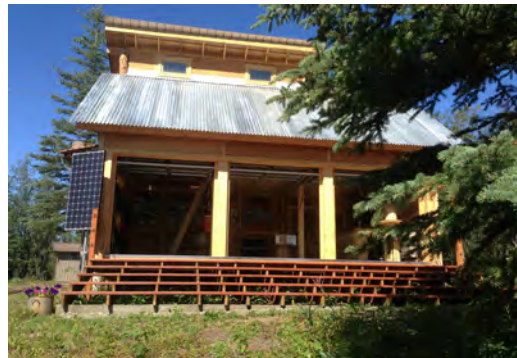
Zip 3 from the Big Spruce



Aspen Sky Bridge



Welcome Center
south face



Interpretive display &
ladder to Zip 1 launch

Zip 6 view

