Watersprite
Project Summary
BCMC Cabin Survey Highlights

- 79% Said the BCMC should build more cabins or huts
- 70% Said huts should be closed in rather than 3 walls and a roof
- 62% Said the BCMC should build cabins or huts to attract people to the mountains
- 93% Said snowmobile activity should not be allowed
- 48% Said the cabin should be built 3-4 hours by foot from the nearest road
- 60% Said the Watersprite cabin should be well insulated with a wood stove and kitchen
- 59% Said the Watersprite Cabin should be midsized 10-15
Budget vs. Actual

Budgeted Costs
- Cabin Construction
- Helicopter Lifts

Budgeted Amount
- $35,000
- $15,000
- **$50,000**

Difference
- $16,119
- $1,753
- **$14,366**

Total Spent = $64,366
Timeline

- **Sept to Feb**: Budget Approved
- **Mar**: Cabin Design
- **Apr**: Trail Building
- **May**: Avalanche Assessment
- **Jun**: Budget Development
- **Jul**: Material Purchases 1\textsuperscript{st} Flight, New Trail Open - Observed heavy traffic to the lake on both trails. Decision made to build 2 extra outhouses, Heli Lift
- **Aug**: Material Purchases 2\textsuperscript{nd} Flight, Foundation Pouring, Material Purchases
- **Sep**: Heli Lift
- **Oct**: Notified that 4 extra arches were made for free, decided to extend cabin 2 days before flight, Final Heli Lift - Tools Out
- **Nov**: Had empty heli flight in, decided to fly in metal siding for end walls
- **Dec**: Final Heli Lift
- **Jan**: Material Purchases 2\textsuperscript{nd} Flight
Items Not Budgeted or Over Budget

- Avalanche Assessment (done at 50% below his normal rate) - $2,650
- Concrete Footings instead of Sono Tube Footings - $2,500
- Stronger Paralam beams for frame due to snow loads - $1,100
- Arches made by Fraserwood instead of BCMC Volunteer - $5,500
- Extra Arches and Cabin Extension - $2,318
- Basic Tools and a Lockable Tool Box - $1,500
- End wall exterior metal cladding (material only) - $1,700
- Locking the Cabin - due to traffic and bad behavior - $350
- Additional Signage - due to bad behavior witnessed - $800

Total: $18,418
Funding Sources

- Concord Pacific
- **MEC - 2016 Contribution**
- FMCBC

Total Contributions to date

- $10,000
- **$15,000**
- $1,200

$26,200

- **BCMC Portion to date**

- **$38,298**

- **MEC - 2017 Possible Contribution**

Total Possible Contributions

- **$15,000**

$41,200
Challenges & Opportunities

**Challenges**
- Arches budgeted to be made by BCMC volunteers - skilled volunteer pulled away on personal demands
- 4 Extra arches made at no charge and not sure what to do with them
- Extra arches required additional building material spend to extend

**Opportunity**
- Required us to have the arches made at Fraserwood. Original quote was $28K and reduced to $7,500 due to BCMC connections. Arches made professionally instead of by us.
- Extend cabin and increase 2\textsuperscript{nd} floor sleep space by 79-sq.ft, provide 7’ overhang over deck as emergency shelter for non guests and side wall protection around front door to prevent snow build up
- Arches were free to fly in as they were one full load anyway, extra flight time was due to extra material as a result of the arches
Challenges & Opportunities

Challenges
- End walls were only budgeted for bare plywood and paint - which requires extensive maintenance over the years

Opportunity
- We had an empty helicopter coming in to fly out the tools as budgeted and used this opportunity to fly in metal siding for the end walls on the deadhead flight
- Improves the heat loss and thus less firewood burned which we pay to fly in
- No further maintenance costs required
Challenges & Opportunities

**Challenge**
- Higher than expected traffic to lake
  - 1 Extra outhouse for hikers at trail termination
  - Designated camping area and campers outhouse far away from cabin to prevent convenience use of cabin
- Increased building material cost
- Increased flight time
- Additional signage to prevent bad behavior and environmental damage

**Opportunity**
- Increased awareness of the BCMC = increased membership. Signage to reflect BCMC’s contribution
- More awareness and education to improve backcountry stewardship
- Chance to fly material in at a lower expense due to ferry times from Squamish
- BC Forestry to make the area a designated site they will maintain
Challenges

- BC Forestry provided free bridge material for creek crossing near cabin

Opportunity

- Avoid double spending of helicopter time for next year - due to ferry flight from Squamish
  - Savings estimated at $600
Additional Challenges

- Late snowpack melt into July delaying foundation construction
- More than expected (4X) concrete required due to depth of foundation holes
- Supplier made multiple mistakes on orders requiring us to purchase at higher prices in Squamish the day of the lift
- Roofing Material Not Ordered by Supplier - Discovered Day before heli lift
- Master carpenters and contractors were pulled away on personal matters
- Limited number of mid week volunteers
- Weather delays during Oct
- Early Heavy Snow Fall in Nov
Remaining Items

***Note all costs for these items already spent - Only man-hours required to complete***

Nov / Dec 2016

- End wall siding and flashing installed
- Fire Escape ladder installed
- Reservation system set-up
- Varnish interior walls

SUMMER 2017

- Install missing pressure treated joist under front deck
- Make and Install external window shutters (protection)
- Paint and varnish exterior items
- Main stairs footing cement pour
- Hiker outhouse to be constructed, including cement pour
- Campers outhouse to be constructed, including cement pour
- Signs to be installed, including cement pour
Key Project Stats

- 13 turns made with large Bell 214 helicopter
- 1 flight with small A-Star to fly cargo nets and tools out
- 33 Tons (66,000 Lbs) of material flown in
- 1,000’s of man-hours dedicated to the project
- 13,000+ Km’s driven at volunteers costs
- 2+ years of planning
Volunteer Dedication

- 1000’s of man-hours dedicated to the project to date
  - Cabin Design - Including re-design from larger size to smaller size
  - Planning - regular meetings for 2+ years
  - Procurement - Building BOM (purchase list)
  - Heli-logistics
  - Trail building
  - Construction phase

- No compensation for gas, mileage or time (Gas alone is $3,000+ for committee members - 65 trips made, if we use Govt. comp @ .52 per km = $6,800 )

- Majority of tools donated by member for construction phase

- Items permanently donated to the cabin by volunteers

- Geo Technical Report done for free by VOC member as favor to BCMC

- Trail building team dedicated to the project
Cabin Information

- Sleeps 10 and is by reservation only
  - $10 / night for BCMC members $20 for non members
- Cabin is locked with ever changing door code
- 7 foot overhang on deck that can be used as emergency shelter for non guests
- Firewood flown in at BCMC expense and stored under the cabin
  - Stove will be locked during summer months
- Spotty cell phone coverage at the cabin
- Cabin not to be used by day hikers or nearby campers as a place to hang out
- You will be able to reserve the cabin beginning Jan 2017 once construction is completed