

Adopting a home in the mountains

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There are a lot of unhappy, semi orphaned huts out there, looking for surrogate parents. Are you up for a bit of a different adventure?

Do you have a favourite little back country hut that hasn't had much maintenance for years? In a special place with great memories and in a place where shelter is mighty handy? Do you want to see it looked after for both current and future generations? Keen to put something back into the hills from which you've enjoyed so much?



Choose a hut that needs maintaining, 2 to 6 bunk.



With the best part of 1000 huts on its books, DOC does a fair bit of maintenance and replacement. Their main priority though is huts at the top end. To me, the older huts are as, or more important than, the flash ones, yet many older huts don't get much attention. Currently we have a window of opportunity to reclaim them and do them up ourselves.

You can do it, have a heap of fun with a few friends in the process, linger in a place you like and add a new dimension to a favourite area. And claim the cost back from a fund set up for doing this work (including helicoptering in materials and tools) through the Outdoor Recreation Consortium. How do you go about it? Each region and hut will be a bit different, but here is a general pathway I think works well. Taking on a hut can be organised through a group such as a club, but that isn't really necessary. One responsible person is all it needs, with a couple of friends.

Which hut?

Look at the huts that appeal to you on the DOC website. A 2, 4, or 6 bunk hut is a good size to maintain. If the hut has no overnight charge, it is probably on DOC's minimal maintenance list. That means it is a low priority to DOC, and the hut is in desperate need of a friend like you. Sometimes these huts have had some maintenance and been painted, but a closer look will often show all sorts of work that is still needed. It would be nice to see them restored to look like the comfy, warm, vermin free huts they originally were. Make a quick enquiry about the hut by ringing a local DOC recreation/partnerships person. Is it one they will continue to fully maintain? If not, read below.

Check out the hut.

Make the hut the focus of a trip, and plan to spend a day onsite. Photograph everything, inside and out. Take some photos of the worst deterioration, broken and rotten boards, etc to make you feel chuffed when it is back in tip top condition again! :) Photograph everything else too. Windows, latches, door, doorknob, inside and out, piles, fireplace, corners around the fireplace, water tank, taps and attachments, etc. What is the loo like, what does it need, is it solid enough? I have also found photographing the pages of the logbook a useful exercise, giving me a handy reference to what others found. All this will become useful to reference when you are sorting what is needed when back home.

Also take in a notebook and pen and a ruler/tape. Measure everything you can, particularly around what needs repairing, but even seemingly random stuff can be useful. Window glass dimensions, fire door glass measurements, how thick the main door is (this can be an essential measurement when replacing some door latches). Hut dimensions, etc.

Most of all, get a good feel of just what is needed to bring it back up to good condition to see it through the next 30 years. Write down under various headings eg, door, windows, fireplace, floor, roof, walls, etc everything that will be needed to be done in that area, with sketches and dimensions. To do this thoroughly will take a while, that's why it is worth scheduling a day at the hut to do it in. You'll enjoy the day, and discover stuff you may have walked past dozens of times but never really noticed. Not just about the hut but it's surrounds too. You are now in a good position to talk to DOC, because it is extremely likely you now have more knowledge than they do about the hut.



Subfloor photos are easy enough with a simple camera and flash

Think about friends you would like to be involved. For most huts you will only need a few mates. A builder or competent handyman will be important for any major cladding or minor structural work. But they only need to be there for that

part. Much of the work can be done by anyone with handy skills or a will and motivation.

Contact DOC

Ring DOC local area office, and ask to speak to someone in hut maintenance and partnerships. It is easy not to make this move, and procrastinate. Just do it. After all, if you don't phone, nothing happens. If you do phone, something might. Tell them you are interested in a management agreement to look after the hut. These last for 5 years, with right of renewal if everyone's happy, for a further 5. Many DOC staff haven't had that much involvement with others taking over huts they nominally have responsibility for. You might have to coax them or lead them through the process, they are learning about the new world too. Remember that the hut you want to manage may be the last thing on their mind. They may have never even been there. That's why someone like you needs to take it off their hands for a while. Be gentle on them. Confrontation, accusations and conflict aren't part of doing things on a mutual good will and trust basis.

The primary aim is to build up a rapport with them of mutual confidence. I have been very lucky with this. DOC staff I approached didn't know me or the huts I wanted to maintain. But after going through responsibilities and safety needs, we signed an agreement then they let me get on with what was required as I saw fit. Initially they planned to come in and help sort out what was required, but the truth is, I already had a plan and knew what I was going to do and how I would do it.

If they have signed a management agreement with you they need to give you the trust and respect to manage it yourself. It is not their role to put you through an inquisition or micromanage your project, but discussing things with them will engender confidence on both sides. After all, the agreements are predicated on trust, respect, and no surprises. What both you and DOC want is to be friends at the end of the first 5 years, have mutual trust and confidence in each other. That will make the second 5 years of the agreement easy.

Seek funding.

Once you are talking with local DOC, go to the Outdoor Recreation Consortium website to apply for funds to carry out the project. Fill out the online application form. Don't get too hung up on details that you can't yet answer. Where you have problems filling it in, send it anyway, and talk with Jamie the FMC administrator, or ring me. (03 329 0008). Grants for up to \$5000 can be approved by a vetting committee, but amounts larger than this require further authorisation. The committees involved only meet intermittently, so authorisation won't necessarily happen overnight, but if the application is to maintain a hut or track that has seen little work and needs it badly, finance is very likely to be approved, because that is what the funds are especially for. This can usually be indicated through Jamie.

Get on with it.

It's best to sort the major stuff first, although the first trip might be clearing vegetation from around the hut, giving things a decent clean, and doing one or two straight forward things to get the measure of it. Remember the Building Act allows for structural maintenance on a like for like basis. But in many cases, only minor structural work will be necessary. When flashing around doors, windows, chimneys and roof eaves, remember that the purpose of flashing is to shed water to the outside. (That's a lame comment I know, but it is surprising how many things are badly flashed). Make sure you follow good advice on how to go about that.

As an aside, a product called Flashtac, an aluminium backed bitumous/sticky tape can be used as a temporary repair on roofing iron and as a flashing, but it is expensive to use in quantity. It relies on melting onto the iron in warm conditions and sealing over it.

Tool checklist

Handsaw, 1 metre ruler, 5m tape, square of some kind, pencil/pens, a couple of versatile chisels, pliers, level, a brace and bit drill, a socket bit to screw in tech screws that fits into the brace and bit (ordinary straight round shaft works) and a couple of bits to drill across floor boards to replace short sections of floor. A couple of hacksaw blades. Rasp, sandpaper, tinsnips, ladder (a folding one that opens out to lock as one long ladder is best), about \$100 each, and vital for safety. Screwdrivers, for slot and Philips, and DOC square end. Small spanner. Paint brushes/rollers, some spare old cloth when painting. A small but effective wrecking bar. I take a few 2lt icream containers too, to use for painting and cleaning etc.

Many of these items I simply take from home. If I need to though, I buy simple and inexpensive tools to do the job. Remember there is no point in buying the flashiest tools for working on back country huts. That isn't economic sense. Often they will be left on site between visits. Cheap basic gear does the job and is less likely to be flogged. Tools such as a brace and bit can often be brought at second hand dealers, as can various diameter bits for them.

Then there are trackwork tools. Something like lightweight geared Fiskar loppers and a fixed or folding handsaw.

Repairing floorboards.

Initially sort out a replacement piece of tongue and groove that is long enough. In the old FS cupboards there are often shelves made of the same tongue and groove timber. Failing that, bring in a replacement slat and flog one off the bunks, or bring in a new piece of tongue and groove. But be careful. There are many different widths, thicknesses, and profiles on what looks such a simple thing to replace. Stuff on site will usually be the right profile.

Sort out where the joist is underneath from the nails in the floor. Select halfway across it (the joist will be 50mm on it's edge) and mark it square. Drill a series of holes across the floorboard, leaving the other half of the floorboard over the joist untouched. Do the same at the other end of the broken/rotten board. Use the hammer and chisel to cut as cleanly across the floorboard as possible, removing the broken bit. Job half done. Take the opportunity to photograph and check the soundness of the joists, and the bearers under it. You've just made some firewood.



Cut a new piece to fit the hole you've made in the floor. Now the tricky bit. No, tongue and groove wont fit into the gap, due to the tongue and grooves. Leave the tongue alone. Position how you want the piece to fit in, then remove the lower flange on the grooved side. Wallah. Fit the tongue into the groove already in the floor, then push the board down, letting the top flange fit down onto the tongue on the other side. Just need to put a couple of nails in to hold it. Done.

Building a roof ladder.

Need a good broad board, 200 or 250mm wide by 25 thick, about 2metres long. Across the top end nail/screw a 75 x 75 board, about 1 metre long, at right angles. Nail through the thinner broad board into the thicker board. Use as longer nails/screw as possible. (75mm+)



Not a good one, but shows the idea.

Turn the board over. Select wooden battens to use as cleats across the broad board at comfortable ladder spacings. Place them under the broad board at right angles and nail through the broad board into them. Turn the board up the way it will be used on the roof again and make sure any nails that have come through are well hammered over flat. On the roof, always be conscious that the cleats and holding 75x75 board do not become loose. Make sure no nails protrude that can scratch or mark the roof. Use with care, moving the ladder along the ridging as necessary.

Replacing skylights.

Something like Suntuf is the standard choice. Be careful not to select less durable products. It needs to be strong and last. Pick a good dry day. Have a rope, ladder, and roof ladder handy. Suntuf can be cut to length with a pair of strong scissors. Follow the manufacturers guidelines, available on the net.

Clear skylights in huts can be prone to condensation. Various methods have been used to minimise this, including using a heavy clear plastic layer under the clear corrugate. However, polythene sags and soon breaks down in UV light. It is not recommended. One solution being tried instead is clear PVU sheeting from Para Rubber, used for the clear windows in caravan awnings. This lasts much longer and also firms up a little in cold conditions. If adding this, it is best to wrap the end of the PVU around a batten and nail it to the edge of the top purlin while the skylight is out. Then run the PVU over the other purlins and let it hang to the outside of the hut. It may also be worth tensioning the PVU and setting up the bottom batten to screw or nail to the top plate on the outside wall too. It can be difficult to do that once the new skylight is in place, as I learnt.



Skylight and PVU inner liner ready to roll up in the batten and fix outside



and how it works inside.

When putting the Suntuf in place, allow at least 1.5 corrugations overlap either side, and make sure the Suntuf goes under the iron on each side. Make sure it is reasonably snug up near the ridgeline, to reduce the chance of wind driving water up inside. To help prevent that it is well worth placing a section of corrugated foam strip on the Suntuf and under the ridging. These strips are manufactured to use with the Suntuf.

Specific screws with rubber caps are manufactured to use with Suntuf. Ive found it easiest to use the self drilling ones. These have a saw ring under the cap to drill through the Suntuf. Using these it is practical to screw them in with a brace and bit. A power drill is even better, but you can quickly run out of battery grunt. The more expensive self drilling screws remove the need to drill separate holes through the Suntuf initially, saving piddling around with 10mm drill as well. They cost, but they simplify things. And that is good in the hills. Take care to be as gentle with the suntuf as possible. It is claimed to be unbreakable, but Ive seen it crack more than once. A cracked sheet will need replacing. You don't want that.

And pretty obviously don't walk on it or put too much weight on it with your hand.

Fireplaces.

DOC's standards expect that if any work is required on a fireplace then it is to be taken out. Ignore it. I do. The last thing I volunteer for is to remove fireplaces from huts. On the other hand I don't expect to change anything significantly like replace an open fire with a woodburner either, without telling DOC. But really, remove the fire because the inner liner needs replacing? I don't think so. I simply had a new liner made up and flown in to replace the old one. The point is that any work done on a fireplace/woodburner needs to be done very safely. Fires burn one hut down a year after all. That is a big issue. Replace worn out parts, but get it checked.

If concreting fireplace surrounds, it is worth adding slaked or hydrated lime to the mix as it adds elasticity to the mortar, making it less vulnerable to thermal expansion. I asked John Taylor who built the Cobb Tent Camp for advice on ingredients and proportions for concrete around fireplaces. He suggested something like a 5:1 mix where the 5 is made up of $\frac{3}{4}$ sand and $\frac{1}{4}$ clay, and the 1 is made up of $\frac{2}{3}$ cement and $\frac{1}{3}$ lime. If you can't get clay, adding lime to the mix still makes it less sensitive to heat.

Painting

Painting is obviously one of the last stages in restoring the hut. DOC has an agreement with Dulux who supply paint free for painting huts. You will need to work out which paint, sort colours in collaboration with DOC, roughly how many litres (although DOC staff will have a handle on this too). Give DOC a few weeks to order and receive the paint in advance of when you need it. Obviously you will also need to buy paint brushes, roller maybe, tray, and make sure there are a few 2 litre icecream pots to share the paint around.

External

Preparation is the key to a good paint job. Wire brush loose paint and rusty bits. Wash with sugar soap using a bucket and brush. Rinse off with water as much as possible. Let it dry.

Lightly paint or spray Black Gard or CRC Rust Converter onto rusty sections. These neutralise and seal the area, and in effect provide a specialised priming of the rusted area. Avoid the many rust removers that have corrosive phosphoric acid in them that then need copious washing to remove.

Then paint old iron with Dulux Quit Rust, which provides a very good primer coat over the old surface.

Follow up with at least 2 coats of something like Dulux Weathershield gloss.

Internal

Do all woodwork, sealing, and hole filling. Sand or wipe down walls and ceiling using a weaker sugar soap solution. Wipe down with a wet cloth. Let dry. Use Dulux Wash and Wear for kitchen and bathroom, semigloss or gloss. This makes cleaning the walls easier in future. Matt might hide imperfections at home, but is very difficult to wipe clean. Pale or even white is best, it helps keep the inside looking light. Minimum 2 coats.

Woodsheds

Position it to face the north (sun). Yes, some rain may get in from the NW, but the sun is more important.

Build it on a raised area. Putting it over a damp hollow is a recipe for always having damp wood.

Ideally the woodshed should be handy but blend in and not be too conspicuous.

Dimensions. A practical size is about 2m across, 1.5 deep and 1.5 to 1.9 high.

Nail a board across the front of the woodshed, just under the iron roof, to stop people cutting themselves on the corrugated iron. Bury the posts and add a little concrete around their base. Use a level to do a neat job. Use Z nails or straps to tie studs to the purlins the roof iron is screwed to.



Get it square and level and structurally sound.



Just about done.

Corrugated iron is ideal on the sides and roof of a woodshed. It allows radiant heat to pour through and helps dry the wood. Wood on the walls acts as an insulator, keeping out the sun's warmth. Place the woodshed well, paint it up and it will look a million dollars. And it makes it possible to remove damp wood from inside the hut.

Toilet.

Every hut should have one. You would think this wouldn't be hard to get right, but there are some pretty crap toilets out there, and badly designed too. I've been in functioning ones recently that don't have enough foot room when sitting to close the door, many that have swollen doors held shut by a rock, nothing to hang a parka on, and seats I just about need a stepladder for. Another one had so much space in front of the seat that my legs had to stick out straight when I sat on it. Do a bit of planning and you will do a better job. Make sure they are well sealed to exclude vermin from your rat sandwiches. Pit toilets these days should be vented.

If there is no toilet at a low use hut, I'd mock one up of old materials where you want to site it, using dead beech poles etc. Photograph it as evidence of an existing one. Then it is simply being replaced. Otherwise DOC's own processes may bring you to a bureaucratic standstill. You will need a toilet while working on the hut anyway and burying each poo randomly around the hutsite is not a sane solution. Just do a competent job of the build, and dig the pit deep enough (1.5 to 2m).



One thing about the bolts on toilet doors. Doors often sag a little over time. Happens to the best outside doors. Bolts are usually supplied with closefitting metal hoop to slide into. It is much more practical to have a larger hoop that allows for sag, door warping, etc. Being close fitting on a toilet door is irrelevant. What is relevant is that in 5 years time the door can still be bolted easily when leaving in the rain at night. Otherwise, the door is likely to be abandoned unshut.

A couple of other toilet door observations. To make them last, exposed as they are to rain, a strip of Flashtac can be folded over the top of the door end to keep out the moisture. So long as the flashtac is applied well, it works a treat and can then be painted over. Secondly, allow plenty (ie, 15 mm min) gap between the frame and the door along the opening edge, to stop it jamming.



If it becomes necessary to resite, think about the requirements. They are in DOC hut standards. Must be well away from any water source, be elevated a bit to keep them above the water table, and gravel is ideal to dig them in, no further than 100m from the hut. That is all sensible. Often the doorstep outside the toilet gets very slippery. This can be covered in wire or plastic mesh to provide grip, or else sand can be added to a small quantity of paint and mixed in before painting and further course sand/fine gravel scattered on the fresh paint.

Enjoy yourself!!