




**BUILD-IT-YOURSELF
PROJECT**

OUTDOOR SHOWER

Full plans for getting wet in the wild

BY **WAYNE LENNOX**

OUTDOOR SHOWER

Full plans for getting wet in the wild

by Wayne Lennox

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INTRODUCTION

There are perfectly good reasons for building an outdoor shower at the cottage. It's certainly cheaper than a second bathroom, yet it provides a welcome three-season facility when the cottage is overloaded with visitors. You can wash after a swim (you're already wet, so why not get clean?) or after finishing a particularly dirty task, and it's by far the best place to give the cottage dog a bath. It is also easier to maintain than its indoor counterpart. You could even argue that, with fresh air and a view of the sky and trees above, you'll be communing with nature.

But let's face it, there's another reason we like using an outdoor shower. It's—just a little—naughty, kinda like skinny dipping. You're outside, the sun's shining, water's involved, you're naked, and someone probably disapproves.

For some, a shower head and flat stones suffice, but we wanted to build a shower that would provide that sense of freedom while giving some privacy for those who prefer not to bare all. We incorporated sliding doors in the design. They're less visually obtrusive than hinged doors when open, and since they need no clearance around them, the structure can be located very close to trees. The shower we built is sited in a secluded spot, so the cottagers plan to leave the sliding doors open almost all the time, closing them only when they have guests. As with any project, you could make changes to reduce the complexity and cost, and to customize it to your requirements.

We included two doors, a luxury that works with the traffic patterns at this cottage, but may not be necessary at yours. Eliminate one door or the entire changing area, if you don't need them; make the floor plan larger or a different shape to fit your location. You could also adjust the height of the walls to suit your family's average stature and desire for privacy—make it as open to nature as modesty allows.

I used cedar for most of this project because of its obvious natural appeal. But as most cottagers know, it ain't cheap! Pressure-treated 4x4s and deck boards are an acceptable alternative, and untreated pine tongue-and-groove for the walls will last for years here, since it's above ground and will dry quickly after getting wet.

Before you build, note that the effluent from an outdoor shower is considered grey water and requires proper disposal. This wastewater is commonly handled by draining it to either a leaching pit or septic system (see [“Water Out”](#)). Check with your municipality regarding building permits and possible restrictions such as shoreline setbacks.

This is a relatively straightforward project, and two moderately skilled DIYers with a little basic plumbing experience should be able to knock it off in a couple of weekends. The cost—mostly for the cedar, which I warned you is not cheap—is about \$2,500, including the plumbing fixtures.

INSTRUCTIONS

CHOOSE YOUR SITE

Is there an ideal place for an outdoor shower? In most cases, you want a sheltered spot, because a windy location will shorten the I'm-comfortable-standing-outside-while-wet-and-naked season considerably. Heavy winds will also require setting the corner posts in concrete footings instead of simply placing them on 1'-square concrete patio stones, as I did. If you have neighbours, give some advance thought to their sightlines: Lay out a few boards on the ground to mark the walls and bang a few stakes into the ground where the corners and the edges of the doors will be. Then, stand inside the shower area. You'll be able to see what your view of the lake will be and what your neighbours' view of you will be—if you can see them, they can see you. Moving the shower slightly, or even just repositioning a door, can make a big difference. Consider the plumbing, too—how near is the water supply, and how easy is it to install a legal drainage system?



THE BARE-BONES SKELETON

1. Start by levelling four patio stones for the corner posts. (You may have to stack a couple to help achieve that level base.) This structure is small and rigid enough that a little winter heaving won't do any harm, so full below-the-frost-line footings aren't necessary unless it's in a very windy spot.
2. If there's any digging needed for your drainage system (see ["Water Out"](#)), do it now, before you start building overtop.
3. Cut and assemble the main elements of the end walls—4x4 corner posts, 2x4 frames, and tongue-and-groove siding—on the ground (see [figure 1](#)). I toenailed the 2x4 frame pieces to the posts with #10 x 3 1/2" deck screws and attached the siding with #8 x 2" deck screws. Note that the siding is longer (60") at both ends of the structure and on the sides of the storage compartment; it's shorter (48") elsewhere. As well, position the siding 1" above the top rails, because it just looks better that way. Once the end walls are built, stand them up and brace them.

4. Cut to length and scallop the ends of the two 8' headers, then clamp in place on the posts. Cut two 2x6 pressure-treated rim joists for the floor structure and clamp in position on the posts too. Once the structure is plumb and square, and headers and rim joists are positioned correctly, drill 3/8" holes and bolt the clamped parts together (two bolts per intersection). The lower set of bolts on the headers must be flush with the surface, or the outer valance won't sit flat. You can either countersink the bolts or overtighten them a bit to pull the heads down.
5. Position four more patio stones for the other posts. Bolt posts to headers and rim joists. Trim posts to length, 1" above headers. Screw post caps on top of posts.
6. Cut three cross headers and screw to the tops of the posts, as shown in [figure 1](#).



THE FLOOR

1. Cut 2x6 pressure-treated spruce joists to length and attach between the rim joists with #10 x 3 1/2

screws. Remember to install plumbing for the drain.

2. Cut nine deck boards for the floor from 5/4x6. (Two boards have 2"-deep notches to fit around the posts.) Fasten the boards in place with #8 x 3" screws, making sure to leave even gaps (roughly 3/16"). To create access to the drain for winterizing, here's what I suggest: Locate the deck board that overtop the drain. Cut out a section, lining up your cuts over the centres of two adjacent joists. Pre-drill holes near these cuts in order to avoid splitting the ends of the boards when you screw them in place. In fall, unscrew this short piece to fill the drain with non-toxic antifreeze and plug it. As well, add an overhang support for the edge of the deck board at each door: Sister a 30" length of 2x6 to the right joist, between the posts framing the door.

SIDE WALLS AND DOORS

1. Cut and install the 2x4 frame and the tongue-and-groove for the side walls.
2. Construct doors as in [figure 8](#), taking care to build them square. I used outdoor-rated glue and two #10 x 3 1/2" screws at each corner. Note that the two screws should be offset from the centre line: one screw 1/8" to the left, the other 1/8" to the right. (This keeps them clear of the screws for the pocket-door hardware.) You'll have to countersink them about 1 1/2". I filled the holes with pine plugs because I like the contrast of pine and cedar. The corner bracket is optional.
3. Rip lengths of tongue-and-groove to 5/8" x 3/4" to make the cap trim for the walls and the tops of the door panels. Nail in place, flush to the inside surface.
4. Although the pocket-door hardware I chose is meant for interior doors, it's sturdy enough to use outside. I did replace the screws in the package with #8 x 3" deck screws to mount the supplied brackets to the doors more securely.

DOOR DETAILS

1. From an 8' length of deck board, rip two inner valance pieces as in [figures 1](#) and [7](#). Trim to 7' and mount with 2" screws and glue, flush with the bottom of the headers. Rip the outer valance pieces from 8' lengths of the 5/8" tongue-and-groove. Use finishing nails and glue to attach them.
2. Attach the pocket-door track with the screws provided. It should extend 1" beyond the post that's at the front of the bench. With help, hang the door in the track. You may have to make adjustments so the door is square in its opening, the cap trim pieces on the door and wall align, and the door slides freely. First, you can move the door away from or closer to the structure: The bracket holes are slotted for this tweak, but you'll have to take the door off the track first. As well, you can adjust either end of the door up or down by turning the hanger bolts. There's a small wrench for this purpose included with

the hardware (try not to lose it).



- 3.** Rip 1 1/2"-wide doorstops out of 5/4x6. Cut to length (4') and mitre the ends. Close each door (the 2x4 frame should be parallel to the 4x4 posts) and place the closed-position stop. A couple of 2 finishing nails or clamps will hold the stop while you screw it from the inside (for strength) with #8 1 1/4" screws. In the same way, open the door and mount the open-position stop.
- 4.** Add a bracket to prevent the bottom of each door from swinging out as it's pulled open or closed, as well as to stop the door from rattling in the wind. Cut these brackets from leftover 2x6. See [figure 3](#) to download a full-size pattern from cottagelife.com/showerbracket. Mount to the posts with 3 1/4" screws. It's okay if the doors rub a bit against the brackets, but they shouldn't bind.
- 5.** Use corrosion-resistant handles for the doors or, as I did, fashion some from 1" by 1" lengths of scrap wood. Or make some out of other materials, such as driftwood or small cedar branches.

After the winter, it's possible frost heaving will shift the shower; if the track isn't level, the door may not stay open or closed. Fortunately, the whole structure is small and light enough that it can be

lifted slightly while you shim under the posts to re-level it.

BENCHES AND STORAGE

1. Make the corner bench from three pieces of 2x6, ends cut at a 45° angle. Mount each to the frame with 3" screws, leaving about 1/4" between the boards.
2. The dressing area bench consists of three lengths of 2x6 on top of a 2x4 frame (see [figure 2](#)). Cut and install the 2x4s, then screw on the 2x6s, first notching them to fit around the posts and the diagonal brace.



3. Cut short pieces of tongue-and-groove for the storage-compartment doors and attach with #8 x 1 1/4" screws to 1" by 2" boards (ripped from a deck board). I used T-hinges to hang the doors. Fashioned a simple doorstop and latch, and make your own pulls from offcuts or driftwood, or use off-the-shelf.

ones as I did.

SHELVES

1. Above the corner bench, install a simple shelf. Same idea as the bench, just smaller, using two lengths of 1x6 cedar. Unlike the corner bench, I notched the first board to fit around the 4x4 post. Screw the pieces to the 2x4 top rail.
2. I added five small shelves (see [figure 4](#)) in the dressing area, screwing supports (2"-wide strips ripped from 1x6) to the 4x4 posts, and then topping with shelves cut from 1x6 and notched to fit around the posts.



3. A few coat hooks, installed above the bench, complete the shower construction.
Don't stain, paint, or finish the wood—in an outdoor shower, even the wood should be *au naturel*.

Any finish will be difficult to maintain; in time, nature will provide a beautiful patina. You might give the surfaces a scrub-down with a power washer once in a while, but that's it.

As a final touch, I looked for any corners, such as those on the doorposts, that could make for a nasty encounter with a naked body. I softened them with my router and a 5/8" roundover bit, but if you don't have a router, plane and sand, or simply sand, these edges.

MATERIALS

All wood is cedar, except where noted.

- 8 4x4 x 8' (length may vary according to terrain): posts
- 8 4x4 post caps
- 10 2x4 x 12': framing
- 6 2x4 x 10': framing
- 2 2x6 x 16': headers, dressing bench
- 3 2x6 x 10': cross headers, corner bench, overhang support
- 32 lin. ft. 1x6 tongue-and-groove: walls
- 2 1x6 x 8': shelves
- 4 5/4x6 x 14' decking: deck boards
- 3 5/4x6 x 16' decking: deck boards, outer valance, doorstops
- 1 2x6 x 14' pressure-treated spruce: rim joists
- 3 2x6 x 10' pressure-treated spruce: joists
- 4 1x4 x 12' spruce: temporary bracing
- 4 2x2 x 3' spruce stakes
- 8 1' x 1' patio stones (you may need more)

HARDWARE

- 32 3/8" x 6" galvanized carriage bolts, nuts, and washers
- 2 5 lbs #10 x 3 1/2" deck screws (beige)
- 1 5 lbs #8 x 3" deck screws (beige)
- 2 5 lbs #8 x 2" deck screws (beige)
- 50 #8 x 1 1/4" screws
- 1 lb 2" galvanized finishing nails
- 4 medium T-hinges
- 2 small pulls

WATER IN

Supplying water to an outdoor shower is a lot easier than many other cottage plumbing projects for one reason: access. Little, if any, of the work is under the cottage, where you're inevitably pulling yourself through dirt, commando-style, with mere inches of headroom and unholy hordes of bloodthirsty insects all around.

Working on a flat, non-flammable surface (i.e., not the deck), you can solder all the parts together for the mixer valve and shower head. Start at the mixer valve, following the instructions that come with it. You'll need a short stub of pipe with a valve on the bottom outlet, which usually connects to the tub spout. Open this valve before winter to drain the mixer valve so it won't freeze. The top outlet directs water up to the shower head. The exact fittings you need may vary with the design of your shower head; staff at a plumbing store can help you find the right ones from among the dozens of different bits and pieces available. The two side outlets are for hot and cold water coming in. Here, I installed threaded fittings to accept the garden hose I used to convey water from cottage to shower.

Why a garden hose? The outdoor shower is designed to accommodate frost heaving, so I wanted to avoid rigid pipe, which could break under the strain of seasonal movement. As well, hoses make prep for winter a breeze; they can be removed and drained in a matter of minutes.

At the cottage end, you need two outdoor hose bibs (the taps that you screw the garden hose into). You may already have one for cold water, but you'll probably need to install one for hot.

WATER OUT

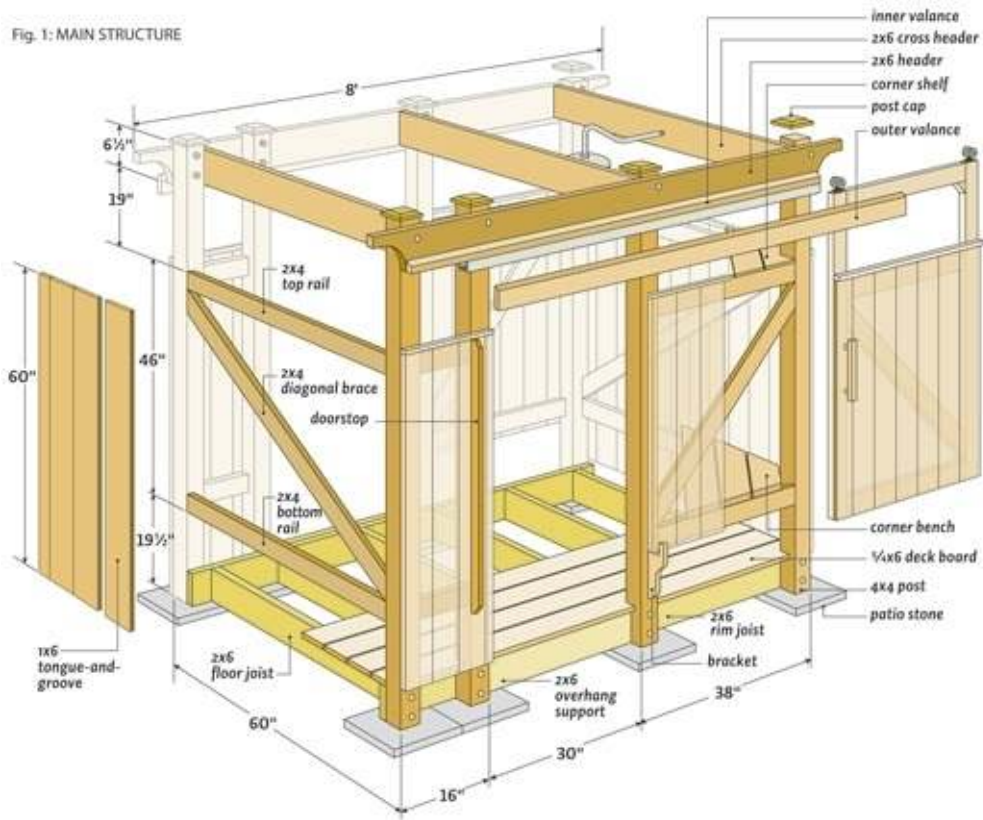
Once water leaves the shower head and touches you, it's considered to have cooties and must be disposed of properly. The more technical term for it is "grey water." In some circumstances, it can drain into a leaching pit—essentially an elaborate hole in the ground—out of which it percolates to be treated by soil bacteria. Leaching pits are likely regulated by the building code in your jurisdiction, so setting out where they go and how they must be built.

It's often much less work to tie the drain into the existing septic system, especially if the shower is near the cottage. A trap in the drain will prevent sewage gases from escaping. (While these gases aren't as dangerous emanating from an outdoor shower as they can be indoors, they are just unpleasant.) Each fall, you'll have to winterize this drain, by pouring non-toxic antifreeze into the trap and blocking the drain hole (to prevent rain from diluting the antifreeze).

But how do you collect the grey water to get it into the drainpipe? Some people install an acrylic

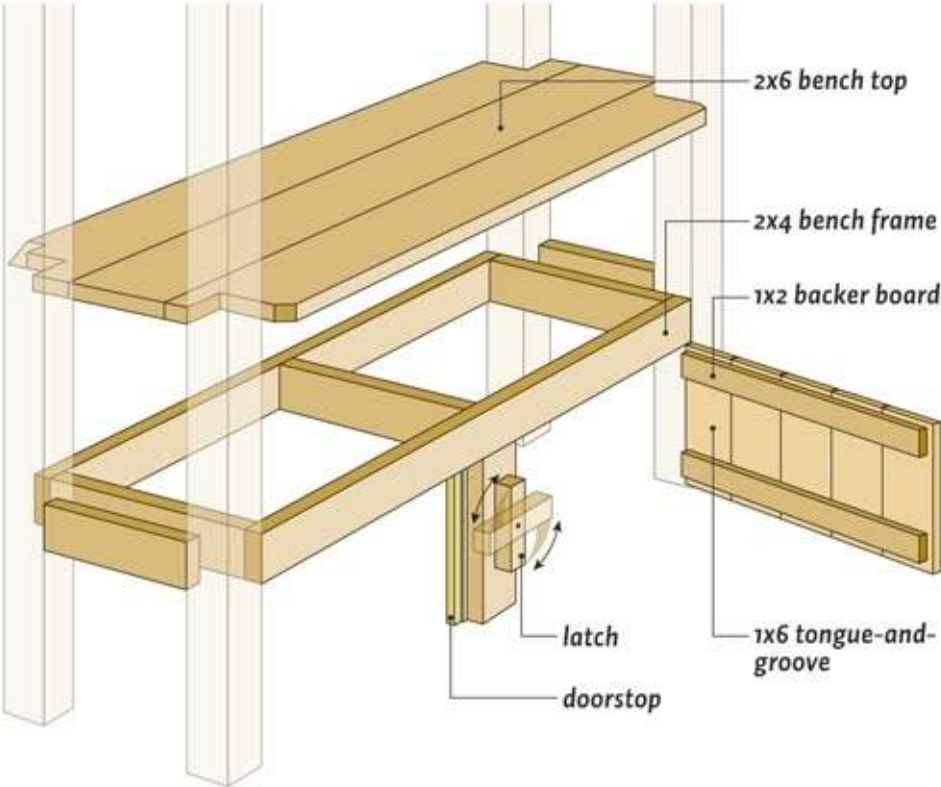
or fibreglass shower pan under the deck floor. Another solution, which will drain a larger floor area, is to use a flexible, waterproof PVC shower liner or even a garden-pond liner. A shower liner is usually used indoors with a poured concrete pad to prevent leaks. In this application, you can simply attach the edges (with roofing nails) to the joists, forming a large catch basin. Insert and secure a standard shower drain in the liner and connect it to the septic system or leaching pit. You may have to dig a shallow depression for the liner so the drain is at the lowest point.

PLANS



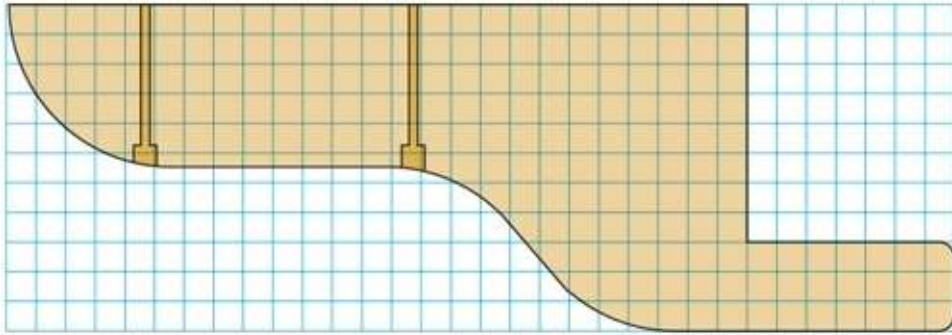
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Fig. 2: DRESSING-AREA BENCH DETAILS



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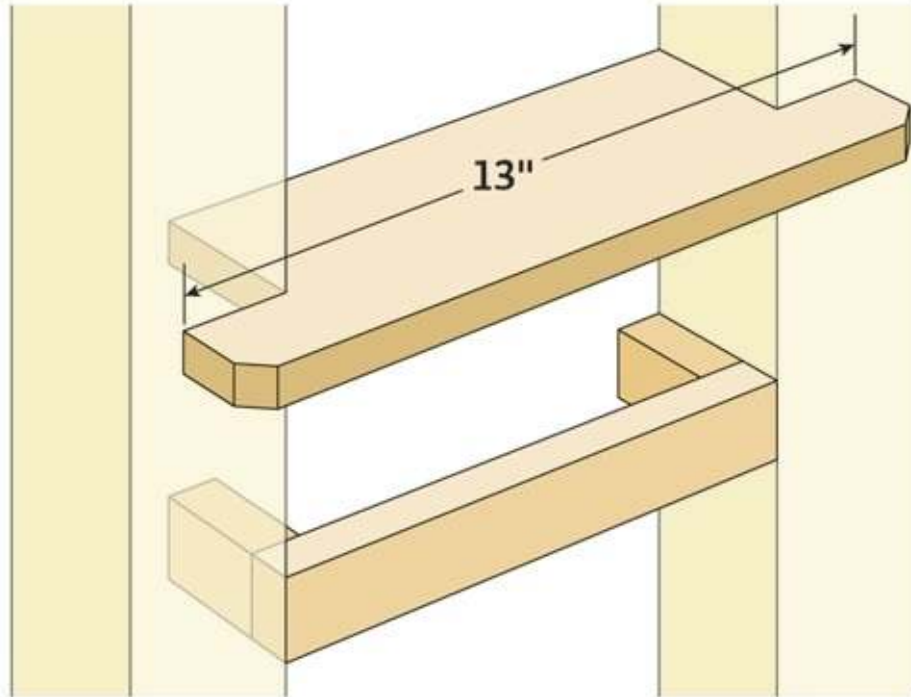
Fig. 3: BRACKET



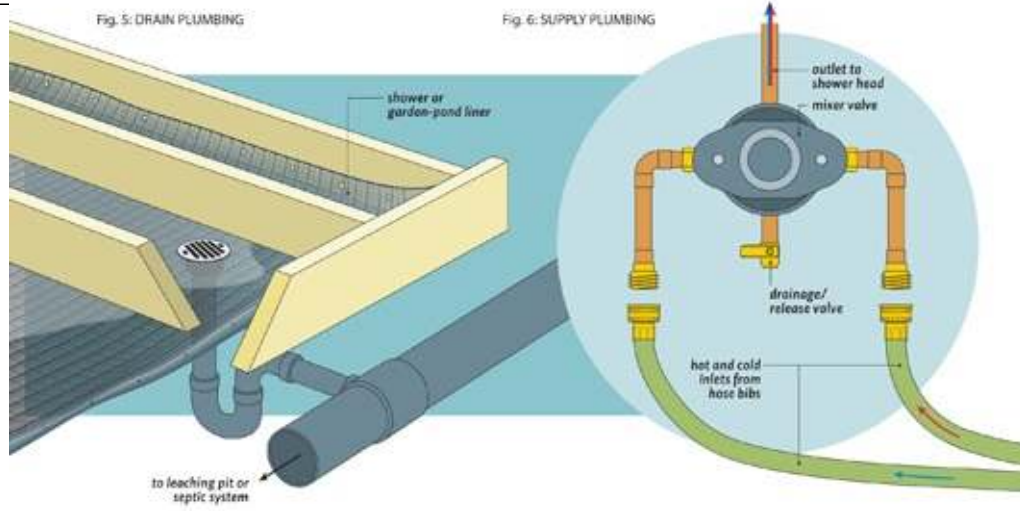
1 square = $\frac{1}{2}$ "

Tap to zoom.

Fig. 4: DRESSING-AREA SHELF



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Tap to zoom.

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