

Have shower...Water garden

by **bauble** on March 27, 2009

Intro: Have shower...Water garden

You can have water automatically directed to your garden every time you have a shower. This instructable shows you how to run the water from your shower to your garden. And then how to distribute the water *evenly* around the garden.

Please note, this method has only been used on a flowering garden. If I was growing herbs or vegetables, I would not use this method. If you are growing food, you still may find some benefit in using the sunken pots that are mentioned later.

This method uses recycled roof guttering to act as an irrigation channel in your garden. Your garden will thrive without wasting precious drinking water. All the water is delivered to the root zone which means it is going straight to where it is needed. Water restrictions are becoming more common, so with a little bit of work now, you can still have a healthy garden and feel good about doing your bit for the planet.

I have had this system in place for 4 1/2 years. The soil is a little bit clayey. I was never dedicated to watering and my plants wouldn't thrive and would be lucky to even survive. With this system, the plants get a lot of water with no effort. I thought it would be too much water, but everything is fine so far. No effort has been made to use special shampoos. Just the regular stuff. And the fact that shower water is hot has had no effect.

If your house is on a concrete slab then this instructable is not suitable for you. You may still be able to make your current system of watering more efficient by using the sunken pots.



Image Notes

1. Plant pots are buried in the soil near plants. Water from the shower is piped out to the garden. Old gutter is placed in the garden. The water fills the gutter and spurts out the holes into the plant pots. Plants get watered down at the roots and you never have to waste drinking water on your garden again!

Step 1: Materials

What you need:

PVC pipe and fittings compatible with the pipes carrying the waste water from your shower. This is likely to be 50mm-2 inch wide pipe.

Small soft drink bottle. (Optional)

19mm-3/4 inch garden irrigation poly pipe. (Optional)

Length of old roof guttering the same length as your garden and similar length of gutter guard.

Old plant pots approximately 18cm-7 inches wide at the top.

Drill, drill bit about 8mm-5/16 inch.

Step 2: Plumbing

Disconnect drainage pipe from shower outlet under your house. Connect your pipe and fittings and run it along underneath your house in a way that pleases you to the edge of the house. Either have a small amount of fall in the pipe from the bathroom to the back of the house with the pipe tied onto the bearers and then use elbow joiners to make a vertical drop to the ground or do the vertical drop underneath the bathroom and run the pipe along the ground. I got my pipe for nothing. That's why it's painted funny colors as it was part of an art 'installation'. You may get lucky if you have some pipe lying around.

Boring, but important to read if you are actually going to make this system.

It is important to use a good length of PVC pipe before you start using the cheap poly pipe. It would be bad if the water from your shower was suddenly squeezed into a very small 19mm-3/4 inch pipe. I didn't try it but there would be a good chance of the water not been able to flow away fast enough and been forced to rise up back into your shower. My PVC pipe runs about 12 meters under the house before it gets to the back yard and joins up with the small pipe. If your bathroom is at the end of the house near your garden, then I'm afraid I can't give you any exact guidelines on how long the PVC pipe needs to be.

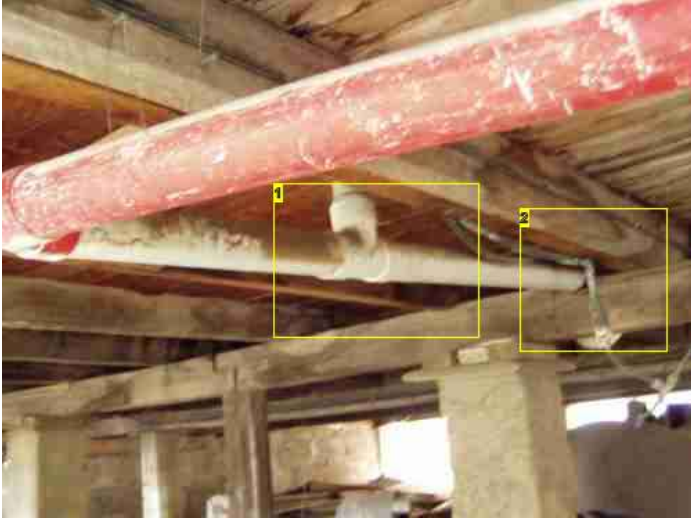


Image Notes

1. This is where the pipe comes down from the shower outlet
2. This is where the pipe comes down from the bathroom sink

Step 3: Linking big pipe to little pipe

If you don't mind PVC pipe running across your yard then you can skip ahead to Step 5. Steps 3 and 4 are just a way to minimise the visual impact of having pipes running across the yard. If you do use the 19mm-3/4 inch poly pipe, after a couple of years there will be a sludge build up in the poly pipe. It can be disconnected from the PVC pipe and hosed out.

Cut the bottom off a small soft drink bottle so that the bottle fits snugly over the PVC pipe. Put one end of some flexible type garden irrigation 19mm-3/4 inch poly pipe into the neck of the soft drink bottle.

I found a small Coca cola bottle to be perfect. Other brands didn't fit snugly. Things could be different where you are so you may need to experiment. Once you find a brand and size that fits, collect a few in case you need to replace it. Reasons to replace: accident when mowing lawn, curious dog, degradation due to sunlight.

I made this system in late 2004 so unfortunately don't remember the size of the bottle.



Image Notes

1. Small soft drink bottle connects big pipe to small pipe

Step 4: Getting water to the garden

Run the pipe out to the nearest end of your garden bed.

After a few days or weeks, when you are happy with the position of the poly pipe you may decide to bury it. Just take a spade and make a continuous slit in the grass, levering the spade backwards and forwards before moving along. Once you have made the slit across the lawn, just scoop out a little bit of soil with your fingers all along. Then insert your poly pipe in and stomp on the grass.

Step 5: Sunken Pots

Figure out key points along your garden where you want the plants to be watered. My garden is four meters long. I planned on five watering points. Each watering point was designed to be in the center of a cluster of plants. The watering points must be in a straight line. Bury your plant pots at these points. Water will go in them and out the bottom through the drainage holes to the root zone of the plants. I call this the 'Sunken Pot' method. You can use sunken pots if watering with a hose or watering can too. The pots I used were about 18cm-7 inches across at the top. Use whatever you have that is about that size.

Step 6: Water channel

Lay a length of roof guttering in your garden. I found it easier for Step 7 that involves drilling holes to have the guttering with the flat back side facing the front. As you can see in the first picture it should sit partially over the sunken pots. When I did this I tried to hide the gutter behind my plants. Eventually when the plants grew so much I couldn't see the gutter anymore. Bend up the far end of the guttering so that the water won't run out. Or if you're fancy you could put an end piece on it. Keep your ears open for anyone who is getting new gutters. There should be old lengths with no holes as long as your garden. That's how I got mine. Use what you have. If you have 150mm-6 inch wide PVC pipe, you could use that instead.

Step 7: Water Spurt points

Drill a hole in the side of the guttering above each sunken pot. This will work better than having the hole in the bottom of the guttering. Holes in the bottom would clog easily. Also having the holes on the side allows the gutter to fill to a certain point before releasing water. Otherwise, with holes in the bottom, the plants nearest the water outflow would get all the water. I found holes 8mm-5/16 inch diameter to be a good size.

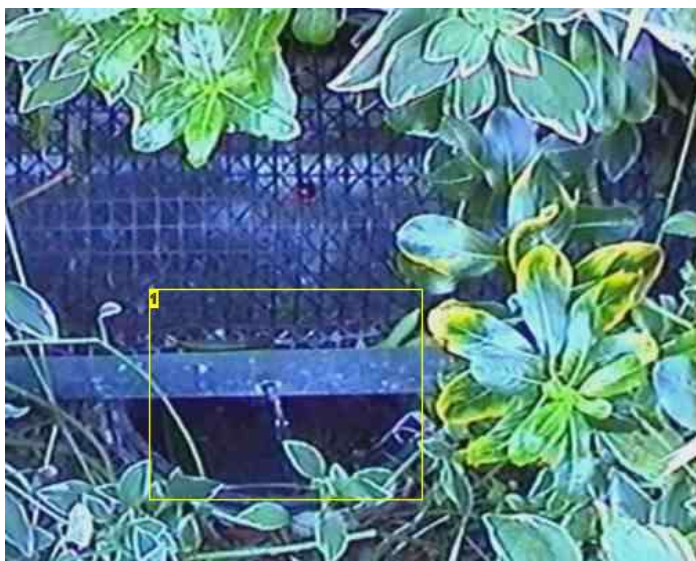


Image Notes

1. Water comes out hole into sunken pot

Step 8: Finishing touches

Position the end of the 19mm-3/4 inch poly pipe over the near end of the gutter. I found it easy to anchor it in place by inserting it through a brick with holes in it.

Put gutter guard in the gutter. This will keep leaves out and make it easier, but not any nicer for you to pick off any hair balls that accumulate on the gutter guard at the water outflow point.

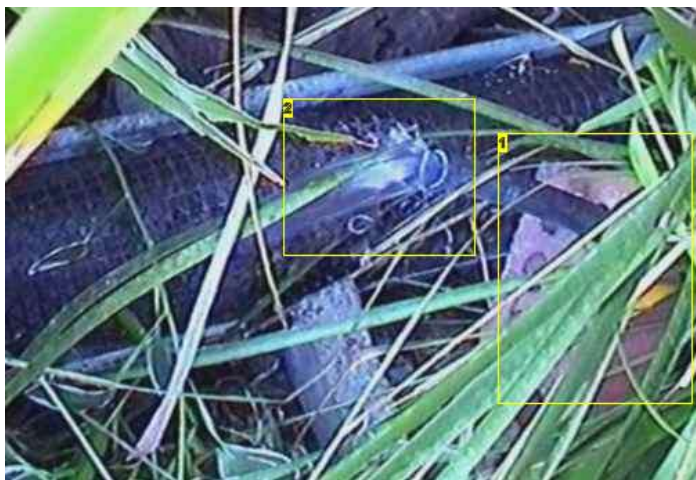


Image Notes

1. Thread the pipe through a hole in brick for stability
2. This is where the water enters the gutter

Step 9: Check everything

Wait for someone to have a shower. Check that all your connections are secure. Then check your gutter. Check that the water spurts along the gutter are going into the sunken pots. If not, move the gutter back or forwards. Does the gutter need raising in certain areas to make sure that the whole length fills? Mine did. I never had to bend up the end of the gutter near the outflow as it is slightly higher than the far end. If the gutter is reasonably level with just a little fall, then each sunken pot should fill with about the same amount of water. If you decided to use this shower watering system without the sunken pots you would lose the visual cue of checking on each pot to ensure that water distribution is fairly even.

Then enjoy. It's really fun to go out into the garden while someone's having a shower and watch all that water being put to good use. Sounds like a babbling brook too. Very peaceful.



Comments

37 comments [Add Comment](#)



shadowofblood says:

Jul 21, 2010. 10:42 PM [REPLY](#)

Ah man, I was hoping to be able to do this instructable. Turns out our shower's drain pipe runs straight through the concrete foundation our house is on =(



gemtree says:

Aug 23, 2010. 5:01 PM [REPLY](#)

My idea, since I take baths instead of showers is to use a suction hose running to a pvc pipe that shoots thru the floor, hangs under the floor joists and runs to a barrel. Drip system from the barrel. I don't use soaps. Just stuff that is certified organics that can only be bought from the internet or a farmer's market locally.



bauble says:

Aug 24, 2010. 3:58 AM [REPLY](#)

gemtree, just some ideas for you: I don't think you need a barrel. Even though your bath water is untainted by soaps etc, it's probably best not to store it for too long. So why use a barrel? Just hook the bath water up directly to your drip system so that the water gets used straight away. Barrels make things complicated too as the barrel has to be lower than your bath outlet, but still a little bit higher than your garden. And remember to follow the principles in step 7. That is, block the far end of the pipe and have the holes closer to the top than the bottom. This way the pipe fills with water and then comes out all the holes evenly instead of gushing out of the first hole. It's always good to use what you've got laying around or readily available but I don't think it would be wise to use pipe any less than inch & a half/40mm in diameter.



gemtree says:

Aug 24, 2010. 6:43 AM [REPLY](#)

Ah, thanks, Bauble, I appreciate the comment but I have a huge yard. If I decant it to a barrel below the deck, the water will flow easier. I just have to siphon the water out of the tub. Save electricity that way. I may be able to use a small pump to get it going then shut it off. I have found once you get the siphon action going, you can turn the pump off and it will continue to drain. Then... have several spigots at the bottom edge of the barrel branching off to several areas of the yard. I have the barrels already. It would be very hard to find gutter that does not cost me an arm and a leg. I also have a spigot or two. I can also decant all the hand washing to the barrel. I am still trying to get the idea in mind but your idea definitely gave me some good ideas. I have learned from a few other 'ibles and actual local people that you need it to be a bit off the ground to get good pressure going from the barrel. I hope to be able to have water from the roof also go to barrels. I just hate wasting all this nice water from my home. Your gutter and hole position ideas really did make sense. I wish I could make concrete gutters but it might be kind of hard to lift them up enough to keep the flow going. But then, maybe larger pvc might work. Got to go look at prices at the local big hardware stores and check my freecycle group.



bauble says:

Aug 25, 2010. 5:09 PM [REPLY](#)

For another similar garden watering project I didn't have any old gutters. So I wanted to buy black flexible unslotted agi pipe.

In a big barn type hardware store, the agi pipe was much cheaper in the builder's section than in the garden section. And wider too, about 2 1/2 inches/65mm which suited me. From memory the builders pipe was about the same price as the garden pipe but twice the length.

Good luck with all your ideas.



gemtree says:

Aug 25, 2010. 9:30 PM [REPLY](#)

Thanks for the great inspirations and the advice. It really does help, you know. Especially this last one about the different areas to buy the pipe. :)



gemtree says:

Aug 23, 2010. 5:04 PM [REPLY](#)

Truly a cool idea!



gemtree says:

Aug 23, 2010. 5:03 PM [REPLY](#)

Lol @ hairballs! Too funny! Thanks for the warning.



gemtree says:

Aug 23, 2010. 5:01 PM [REPLY](#)

Now THAT is righteous!



zappenfusen says:

Jun 2, 2010. 10:11 AM [REPLY](#)

If you're on a slab how would you tie in to the drainline? Sounds great for the lawn, trees, & such. Not my herbs though.



bauble says:

Jun 2, 2010. 3:24 PM [REPLY](#)

I think you're out of luck there. I've seen short sections of PVC pipe coming out of the external wall from a kitchen sink and then going into the ground/drain. Just a short right angled bend. If your shower was next to an external wall and had one of these outside pipes, maybe you could tap into that.



zappenfusen says:

Jun 4, 2010. 9:05 AM [REPLY](#)

We're billed sewage on the amount of water we use which gives the city a nice windfall during summer here in the South. It kills me every time I water the yard. Look's like rain barrels in my future.



A good name says:

Mar 30, 2009. 9:05 PM [REPLY](#)

I don't know if I feel comfortable watering a garden with water that just washed past someone's arse.



DaneLove says:

May 24, 2010. 7:52 PM [REPLY](#)

This is actually good for watering your lawn! I actually use my washer water to water my back yard lawn and my shower water to water the front lawn. I REUSE water, waste less clean water, save money, and keep a beautiful green lawn!! Cities use reclaimed water for the purpose of watering gardens and lawns, we can do the same! First step though, leave your paranoias! REUSE, REDUCE, RECYCLE!



albylovesscience says:

Aug 3, 2009. 3:02 AM [REPLY](#)

i would not want the water from me just working out to water a garden that just makes me feel uneasy



pleabargain says:

Jul 22, 2009. 12:05 PM [REPLY](#)

Read "When the Rivers Run Dry" and you may never travel again. What people use to water their farmlands is amazing.



A good name says:

Jul 23, 2009. 5:43 PM [REPLY](#)

Hmmm... I might.



Nynaevae says:

Mar 31, 2009. 9:42 PM [REPLY](#)

I would definitely love to do something like this, but only for watering the flowerbed. I'd be afraid to use shower water on the garden; however, especially considering others in the house don't use all natural products for showering. I'm not sure I'd want to take the chance, but hey, I could just be paranoid. :)



dudaott says:

May 14, 2009. 7:26 AM [REPLY](#)

Nynaevae, actually, the substances in soap, dishwasher soap and laundry soap are beneficial to the garden! They help the growing just as that commercial growing compounds do, and the soil will stay "in shape", becoming richer than the soil just "rain watered". So, don't worry!



lisascout says:

Jul 20, 2009. 5:08 PM [REPLY](#)

No, actually, sodium is required for saponification, see the formula here:

<http://chemistry.about.com/library/weekly/blsapon.htm>

Here are some precautions to take to keep the grey water from hurting your plants:

http://vric.ucdavis.edu/pdf/fertilization_Householdwastewater.pdf

And here is an article explaining how sodium is a type of water pollutant:

<http://www.lennotech.com/water-pollution-FAQ.htm>

Anyway, of all the waste water you could pour onto plants, the shower water is probably the most dilute sodium, and if you begin to see your plants burning, you should go back to the pure filtered water.

You're probably thinking of phosphates, as phosphorous is one of the main elements used by plants. But the phosphate runoff into ground water, lakes and streams causes a condition called eutrophication, which is described here: <http://www.water-research.net/Watershed/phosphates.htm> and eventually it kills fish and aquatic organisms.



Nynaeva says:

May 14, 2009. 12:04 PM [REPLY](#)

Personally, I am allergic or sensitive to many substances in most soaps. For example, I can not use soaps with SLS, and other such ingredients. I would be cautious to use soaps and shampoos and such in plants due to the most such common ingredients as SLES (often contains a carcinogen), SLS (a known irritant), Borax (toxin), and Detergents in general (which contain enzymes to break proteins and substances to change PH levels). I would be all for using the water on my edible plants if everyone here used soaps and such with more basic natural ingredients, and I would still be using the shower water on my flowers and other non-food-producing plants if I would conceivably get to the water-let out without destroying the floor here. Not trying to bash your idea, I think it is absolutely wonderful to re-use anything and everything we can, just being cautious, myself. :)



sabbott says:

Apr 9, 2009. 8:00 AM [REPLY](#)

Very nice! Very few public sewage systems remove the many chemicals we put down the drain. So this seems better for the environment generally. And I think most of the things in shampoo etc. would not bother the plants. If you can let it flow over your face and breathe in microparticles, it's unlikely to bother a plant. Any waxy substances will get caught by the soil/compost, and the water reaching the roots will be pretty pure. Soil is actually an excellent filter. This is a great idea, and too bad more houses are not built this way.



pleabargain says:

Jul 22, 2009. 12:07 PM [REPLY](#)

I'd hazard that's the bacteria and mycellium in the soil doing most of the work. Soil can be a particulate matter filter but the hard work is chemical breakdown.



bauble says:

Apr 9, 2009. 4:08 PM [REPLY](#)

Thanks sabbott for that information about soil being a good filter. Also the shampoo and soap used in the shower is an extremely small quantity compared to the amount of water. So it is a very dilute mix that is going on to the garden.



bamboochik says:

Jul 7, 2009. 8:43 AM [REPLY](#)

If you will read the book, "Solviva" by Anna Edey and you will relax about using greywater on vegetable/fruits. This book opened my eyes and it will yours too if you are truly interested in making some positive changes to help the earth and it's resources. Good Instructions!



truemirror says:

Apr 8, 2009. 3:19 PM [REPLY](#)

Just a note, the sewage company charge you on how much water you use, whether or not it goes to watering a garden or goes to the sewage. So the there would be no savings, unless you can work out an agreement with the sewage co, other than that if you properly drain your gray water through filters(or lots of sand and gravel it could be safe for growing plants near your home that will shade the house during the summer, that would cool down your home greatly, but I try to only grow edible plants, and would rather use rain water than take the chance on germs and worrying about ph levels.



hv3333 says:

Jun 20, 2009. 2:32 AM [REPLY](#)

Your statement that reusing greywater will not save you any money presumes that everybody is on mains sewage & nobody has a septic tank that has to be emptied regularly. We're on mains water but not on mains sewage - luckily the old fashioned soak away type. I have friends who have the more modern version & have to pay for their tank to be emptied at least a couple of times a year. Any reduction in the water going down their drain is very noticeable in their bills.

We're also on a water meter, so making double use of water we pay for by the litre is good sense.

As for detergents, mild solutions of soap (sometimes with other ingredients) are often recommended as less harmful bug sprays, often within the organic philosophy. Depending on quite *what* people are using in their showers, the water should be helpful in the garden rather than a problem, even on food. I'm finding it hard to think of anything I would consider putting on the outside of my body that I would object to having on the outside of my veg in even more dilute quantities. If you're that worried, making your own soap, shower gel or shampoo is fairly simple & opens the door to some wonderful experiments - even my silver-haired mother does it, her cinnamon & rose shower gel is my favourite.



truemirror says:

Jun 24, 2009. 9:10 AM [REPLY](#)

Thank you for that information, of course I only could speak from my own experience which is very limited in this area, most likely I shouldn't have commented on this, as some has expressed, some people have sewage meters, this I didn't know, but yes I do/have/will make my own soap, I enjoy doing that as well as I have allergic reactions to many store bought soaps so I enjoy the alternative of homemade soap. I do think about the water I use, and do wish to be more efficient, right now we have tons of rain so much that it soaks in the ground, this could work very well in dry climates.



2 stroke says:

Apr 15, 2009. 8:57 PM [REPLY](#)

my house has a sewage meter



pleabargain says:
Where are you?

Jul 22, 2009. 12:08 PM [REPLY](#)



truemirror says:
wish my house did too,

May 11, 2009. 7:51 PM [REPLY](#)



gunnk says:

Truemirror: You're mistaken about the savings. Most places charge a water + sewer fee on your bill, but both are charged based on the water flowing into your house. By reusing your shower water as garden water, you only pay for the shower with the water for the garden being free. If you water from a hose you pay for your showers PLUS the water for your garden. As the instructable mentions, this technique (called "greywater recycling") is suitable for decorative plants but not food (just like to reiterate that point!).

Apr 9, 2009. 5:08 AM [REPLY](#)



truemirror says:

yes, I see your point, that would be a huge saving for those that use tap water instead of rain water to water their ornamental and shade gardens.

Apr 12, 2009. 3:47 PM [REPLY](#)



bauble says:

Thank you gunnk for clarifying that. Turning waste water into an asset that can be used to keep your decorative garden green means getting two uses out of the one resource. Thanks also for reinforcing the point about not using this technique on food gardens. I'll make that bit bold print in the instructable.

Apr 9, 2009. 4:16 PM [REPLY](#)



unbentcrayfish says:

yes there would be a saving, because you aren't using extra water to water the garden, the shower does that for you!

Apr 18, 2009. 6:49 AM [REPLY](#)



olupana says:

I did an experiment and found my grass greened up tremendously when I used my laundry water to water it. Of course I only use all natural detergent as all my soaps and anything else that goes down my drains. Even paint removers for my art are all natural and don't seem to bother the plants. Of course this is diluted with the water itself. Again, as many mention I would not use gray water on my edible organic garden, this is all rain water but the rest gets reused water and occasional rainwater which I think balances it all. "A good name" states concern about someone's arse, well for the most part that's organic in its own right and no more hazardous compared to the chemicals in the choice of hose you would use to water with. Dog/cats and other vermits can shat in your garden without you even knowing it so I wouldn't worry too much about large copious amounts of water passing oversomeone's arse for unedible garden use. Plus bugs and microbes love that touch of stuff. lol I would only hook up the washer, bathtub/shower and bathroom sinks. Dishwashers and kitchen sinks tend to have oils from cooking go down them even if you are avid about scraping this into the garbage can first. Small amounts accumulate over time and you will have to tend to the scum sludge that will build up in your system. Other than that it should be free flowing from there. Good luck to all.

Apr 13, 2009. 3:41 PM [REPLY](#)



bauble says:

Hi olupana, that was interesting reading. I too have seen the benefits of laundry water on grass. Thanks for giving some info on 'A good name's concerns. I didn't know what to say to that one!

Apr 13, 2009. 6:00 PM [REPLY](#)