

## The Oil Drum: Campfire

### Discussions about Energy and Our Future

#### A Realistic Plan and Time Line for A Survival Homestead

Posted by [Gail the Actuary](#) on August 12, 2009 - 5:55pm in [The Oil Drum: Campfire](#)

Topic: [Environment/Sustainability](#)

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*This is a guest post by Todd Detzel, known on The Oil Drum as [Todd](#). You may find his ideas very ambitious. There are other approaches as well, but this post does point out some of the issues you will want to think about.*

My guess is that almost all city people underestimate what goes into establishing a homestead. And, most importantly, how long it will take – if you start the process today, you should be ready some time in 2016-2017 -- **if you work like a dog and are lucky.**



*This is part of the orchard. There are 15 varieties of apples, 4 varieties of pears, 2 varieties of peaches, 4 varieties of plums, 3 varieties of English walnuts and 2 varieties of persimmons.*

*It looks like we still have a problem with word counts. We will get tech support to look at it. There is a post below the fold, if you click "There's more". Word count fixed.*

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No doubt someone is going to look at the following time line (a total of 7 years – 2 years getting ready for the move and 5 years actually building the homestead) and believe they can beat it. In fact, I consider the time to be highly optimistic but if you think you can beat it, I wish you all the best.

I also have no doubt that other people might do things differently or in a different order. That's fine with me. Nothing is written in stone.

The purpose of this plan is to allow you to continue to live in the 20th century for 10-20 years in the event of total disaster upon completion of your homestead. We rely on a lot of technology and that technology has a given lifespan. Most things like motors, lights, batteries, inverters, and refrigerators eventually die of old age and it will (may) be impossible to replace them so there is no point in planning for a longer period. Although abandoned cities might be “mined” for replacements, this hardly constitutes an acceptable plan for generational survival.

This 10-20 year timeframe can be extended indefinitely by the simple expedient of incorporating generational/sustainable technology right from the start.

This plan assumes that you will be starting with raw land with no improvements. The advantage is that you can tailor things specifically to your needs while allowing time for your skills to develop. Yes, you could buy an old farm. However, I believe that old farms will ultimately cost you more and require significantly more time to rehabilitate than starting from scratch. Further, trying to fix up old stuff is more difficult than new construction. Things are rotted, out of square, foundations and roofs are shot or lack insulation.

The plan also assumes that all property is owned by a single family and that the work will be done by that family (a husband and wife or partner). I know a lot of people believe that a sharing/commune-type structure is the way to go. However, a community timeframe will be little different from that of a family and my experience is that most communities eventually fail.

I’ve learned a lot of lessons since moving to the country over 30 years ago. I should add that I also lived in a rural area until I was 12. However, I sure as hell don’t know everything and some of my suggestions are guesstimates. For example, I grew up around my neighbor’s draft horses but I’m not a teamster. There are thousands of others out there who live far more self-sufficiently (self-reliantly) than my wife and I. But, I’ve also had the opportunity to observe the successes and failures of other people.

The plan below gives a time line that allows time to develop necessary skills, spread out the cost and, most importantly, allows a long enough period to be certain country living is for you before investing everything in something you hate.

Let me begin with the psychological aspects since no one seems to ever discuss them. Not everyone has the personality to survive truly rural living. The vast majority of city relationships break-up within five to seven years because one of the partners absolutely hates everything. It might be the isolation. It might be the mud or having to put on the chains every day to get through the snow (we have friends not that far from us who have to ski or snowshoe out a few months a year from their place to get to their truck almost a mile away). It might be that there is never any time when there isn’t work to be done. It might be having little income. It might be the two-half hour trips each way to the school bus stop if you don’t home school. It might be personal growth. It might be the lack of cultural events. Or, it might be the difficulty of shopping or only being able to afford thrift store clothes.

There are also sex specific landmines: For men, it is the loss of image/status. There is no business card with the grand job title. They are just one more guy in jeans and work boots driving an old pickup truck. For women, it is the loss of support structures/friends.

So, here goes:

First, before you do anything – How much money do you have? Unlike buying a functioning place, starting from scratch means you can't spread the cost over the period of the mortgage. For example, a septic system in my area of northern California costs between \$20-40K including engineering, permits and construction. This money has to be paid out front.

Be sure you have enough money to cover all your living expenses for a minimum of two years in addition to money for construction, etc. In addition, you should have enough basic food for at least a year. This is a good way to learn food preservation skills.

Second, you need to gather information. You need to know about riparian rights/water rights. You need to understand Covenants, Conditions and Restrictions. Are there any local or state ordinances or laws that may impact you? For example, there might be a grading ordinance that requires you to prepare an Environmental Impact Review and hire an engineer if you want to do significant grading such as putting in a long road. You have to find out how much things like power line extensions cost. In my area it is over \$50/foot. Real estate ads might say, "Power nearby" or "power available" but it's not at all unusual for lines to be more than 1,000 feet away (in fact miles isn't unusual). A thousand feet is 50 grand or more, likely making putting in an alternative system more sense. I have a neighbor who can see my power line but can't afford to get hooked up.

Third, you have to realistically assess your relationship and whether you both share the same vision. Don't even think about a country move if there are any problems. This is one area where total honesty is a must.

Fourth, you have to assess your marketable skills and whether you and/or your partner are willing to take any job. Jobs of any kind are hard to come by in the boondocks. It is not terribly unusual for men to work so far from home that they live where their jobs are and come home only on weekends--not too good for relationships.

Fifth, you need to begin to learn needed homestead skills at least two years before you move. These include things such as engine mechanics, wiring, plumbing, carpentry, animal husbandry, crop production, food preservation, etc. You do not want to have these kinds of things become "on the job" learning experiences. You will go broke if you hire people for work you could learn to do.

One important point; "Learning" homestead skills doesn't mean reading a lot of books (although you will buy and read a lot of books). It means putting skills into action right now.

Although you will begin using motorized equipment for fieldwork, it is assumed you will use animals once you are established. My preference would be draft ponies with a forecart/hitchcart.

You need to learn that there is no such thing as "man's work" and "woman's work." I can sew if necessary and my wife can run a chainsaw. Sexism is a good way to kill a relationship. I taught myself to sew on a treadle sewing machine when I was 8 or 9 so I could make packs for my trap line and I also do most of our cooking today because I love to cook whereas my wife hates cooking.

Sixth, if your kids are currently going to regular school, it might be a good idea to begin to transition them to home schooling (if that's your plan). You can buy one of the many programs available and have him/her spend an hour a night on it. I might add that mom and dad should take this time to study their own stuff rather than watching TV/DVD's while the kid works. In fact, I would suggest that you investigate community colleges for appropriate courses so you can

Seventh, your plan needs to be designed to do things in small steps so that failure won't be a disaster. Start with 10 chickens not 100. Start with a small garden not a half an acre. Build a small building before you tackle a major building.

If at all possible, find a mentor! Yes, it will be difficult but it will save you unending periods of re-inventing the wheel. It might be a good idea to ask the real estate agent about this when you are looking for land.

## Steps by Year

### Year one –

Buy land

Buy basic tools

Clear land

Buy used mobile home

Establish domestic and Ag water systems

Establish septic/cesspool system/outhouse/composting toilet

Establish power system or bring in power

Fence future garden

Plant permanent crops (trees, vines, etc.) in the fenced area

Establish small kitchen garden

Have someone custom fit and drill a high organic matter cover crop into future pasture and crop area

Build a combination chicken coup (and/or goat shed) and firewood storage building

Cut firewood

City people seem enamored by land quantity rather than quality. The land will be your lifeblood and you cannot skimp on it. It is far better to have 20 acres of well- drained land with Class I soils than 200 acres of land with Class 3 soils that lay low and needs tiling.



*Meadow - This is part of the area where the 4 families by me will expand food production if it hits the fan.*

Further, since wood will be of major importance for heat, cooking, future construction and, perhaps, woodgas, the land must currently support a sufficiently large wood lot to supply all your needs in perpetuity.

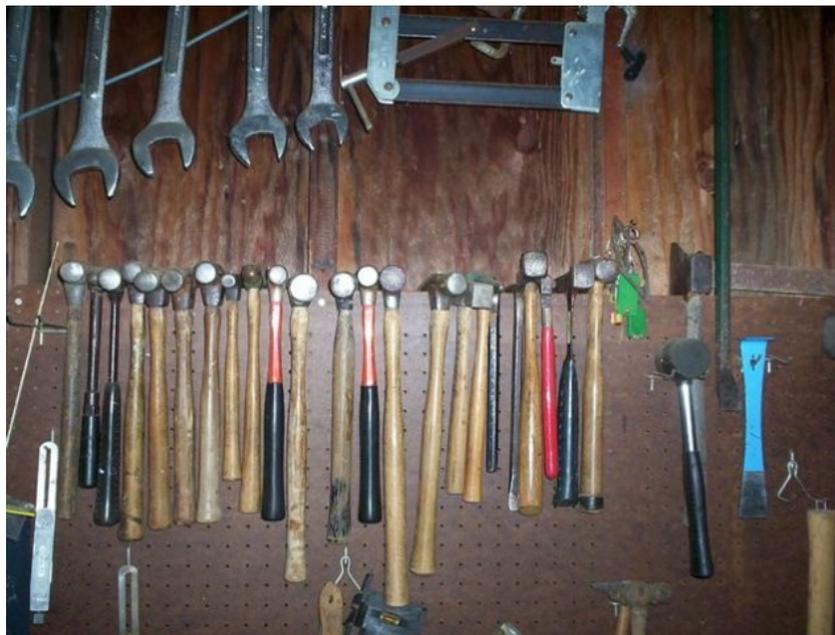
The mobile home is the key to your first year's success. It provides instant dry, warm housing and a bathroom. Don't buy a camper or fifth wheeler! They are too cramped and cost too much. Under no circumstances should you begin building anything large the first year.

Fertilizer costs money and may not be available. Although a great deal of increased soil nutrition can be achieved with legume crops, you really need animals for their manure. Yes, you could make compost from grass and plant waste. However, the nitrogen level of compost is not high enough to help many crops and should be viewed as a soil amendment that improves tilth but nothing more.

The chicken coup/goat shed/firewood storage building will give you a chance to practice your building skills.

Since feeding and taking care of your animals is labor intensive, it only makes sense that they provide some return for your work whether as food or by providing power for things like plowing.

The cost of tools is likely to be an issue. I'm not talking about little home stuff like a couple of screwdrivers. I'm talking about big, expensive stuff that you will have to buy. How do you deal with the reality of saying it is imperative that you spend close to a thousand dollars for chainsaws when your family can't afford new clothes?



*Hammers - Gotta have hammers.*

**Year two –**

Look for work and get a job  
Assess finances

Build barn/shop

Fence pasture into paddocks

Begin working fields on your own. (probably with a tiller)

Plant full garden and preserve excess crops

Get chickens or milk goats

Complete house design and any final clearing

Build cold cellar

Decide whether you are going to use corn silage, green chop/haylage or hay along with grains for animal feed, how you plan on harvesting them and how you plan on storing them (hay stacks, bins, silos, bunkers, Ag Bags)

Cut firewood

This is the make or break year in many ways. You've had your fun playing in the country. You're starting to talk big bucks to build the barn/shop correctly – anything less than 30x40 or 40x40 is a waste of time. Be sure the door is high enough to get large equipment in and out (Know what equipment you might buy. Some equipment like combines require a 13 foot minimum height – and yes, I have heard of ground driven combines.)

I'd consider using a large plastic septic tank or water tank for the cold cellar. They are watertight and all you need to do is stick it in a hole and cut in a door/hatch.

Someone has to start bringing in money. Someone has to build the barn/shop. The garden and orchard require significant work. Food preservation takes time and money. Someone has to be responsible for the animals every day. Deer and varmints are no longer cute and cuddly but have to be killed or fenced out. Cutting and splitting firewood is no longer fun. Sorry - forgot the kids. Time is always short.

You have to make a final decision as to what you are going to use for plowing and fieldwork around your place until you switch to animals. You could buy something like a Polaris Ranger 6x6 rather than a tractor. It can be fitted with a forecart/hitch cart for fieldwork but is safe for jobs like hauling firewood out of the woods. Tractors are good at being tractors but not much else. The only thing you'll miss about not having a tractor is a loader. Incidentally, a forecart is a two-wheel cart that incorporates a manual, hydraulic three-point hitch and a place for the teamster to sit or stand. The advantage of the forecart is that regular three-point implements, rather than horse drawn implements, can be used.

However, I would personally consider a different tractor alternative at this point. I've had a wheel tractor and crawler and what I would do were I doing it again is buy a beater, manual trans, non-emissions full-sized 4x4 and convert it to a "tractor" much like was done in the 20's and 30's with Model T's. It could also be easily converted to wood gas when petroleum becomes expensive and scarce.

Don't buy draft ponies at this time even if that is your final means for fieldwork. And, sure as hell, don't even consider a draft horse. Large animals are going to be another burden you don't need at this time.

I guess I should offer my rationale for draft ponies. In the old days, standard productivity was between 11 and 50 acres of crops per horse. The difference relates to the size of the farm – the bigger the farm, the more efficiently horses could be used. Your homestead will be quite small making the use of any large draft animal inefficient for the simple reason that big animals eat

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more than small ones and require more pasture. This, in turn, requires more work to produce the food for them. Also, draft animals get lazy if they don't have work to do. By the way, I have mixed feelings about oxen – in a way it's a good idea but not so good in others.

Typically, all the cutesy-pie, city ideas of making money like selling organic vegetables (right – make \$100k per acre growing “greens”) or arts and crafts prove to be non or minor money makers for the time they take. This is when city folks think “Let's grow dope. All we need is 10 pounds per year...” I don't care about this morally or even legally. However, everything you have including your land, car, generator, everything, could be confiscated, you could go to jail and your kids could end up in a foster home. Suit yourself.

Now, if you can't make enough money to live on and can't build the barn because you still lack the skills or are afraid of making mistakes while you learn, common sense says **MOVE BACK TO THE CITY NOW!**

### **Years three and four –**

Build the house

Establish permanent pastures including any additional fences and row crops like corn, grains and hay

Go to work and keep on doing what you've been doing

Cut firewood



*Woodpile - Gotta have chainsaws. Extra points for anyone who knows what the cable is. (It's a choker.)*

These are really the years from hell. By this time you may be wishing you had purchased the piece of crap house on the old farmstead with the falling down barn. You may be right but in the long run what you have will be better off if you can stick it out.

If money is getting short (It's always getting short), it might be wise to think about something other than a conventional house. There is rammed earth, straw bale, soda can, yurts, domes, stone using the Flagg method and used tires. These can take a long time to build.

However, one idea I have is used mobile homes. You can buy used 10/12'x50/55' mobiles for under five grand. If you bought three more, you could form a square with an atrium in the center. You could strip off the tin skin, sheet with rigid foam insulation and then wood sheeting (or, maybe, Hardie (cement) board) and put on a regular insulated roof over the tin one. This doesn't take much skill. Since there are no interior bearing walls, the interiors could be gutted and reframed to whatever configuration you wanted. An added advantage is that they won't be taxed as a permanent improvement like a house. Think about it.

If I had lots of money and the right location, I would seriously consider building the house, including the roof, out of poured concrete below grade. With a sun scoop, light pipes or atrium, it wouldn't be like living in a cave. There would be many advantages; essentially no exterior maintenance; little air infiltration; fire-proof; the soil would moderate the internal temperature; plus many more.

### **Year five –**

Add any final animals such as sheep or confined meat animals like swine (although swine can be run on pastures if you ring them)

Try to finish what you started

Probably try different varieties of vegetables

Build a silage bunker if that's your trip and grain storage bins

Buy a team of draft ponies and learn to work them (a forecart/hitch cart will work fine with them and a team can easily pull a one bottom plow which is all you need)

Cut firewood



*This shows blueberries on the left and some grape vines on the right. There are three varieties of blueberries and a total of 10 varieties of grapes.*

Well, that's it. I've left a lot (a whole lot) out but you get the idea. Trying to do it all in a short period of time guarantees failure. Lack of money guarantees failure. Not taking the time to educate yourself before your move guarantees failure. Thinking your partner isn't working as hard as you are guarantees failure as does telling your partner what to do. A poor relationship guarantees failure. Being afraid to make mistakes guarantees failure as does someone bitching

And, last of all, and most importantly, not taking time for yourself guarantees failure. I cannot emphasize this enough! When we were building our houses (I built three for us and a few more for other people), my wife and I made a decision to stop work from 2 to 4 PM and go down to the creek to skinny dip each afternoon. Then we would work until 6, have dinner and then work until it was twilight and go to bed at 8:30 or 9 (in our 6'x9' tent for the first house). You have to do something like this because there are always 28 hours of work each day when you are establishing a homestead. You might like to read or sew instead but you have to force yourself to take a break or you'll break.

You might ask how much a homestead like this will cost. All I can say is, "It depends": It certainly depends upon the geographic location. It depends upon the skills you have or can develop. It depends upon the climate since this will influence how much food you can grow easily and your heating demands. It also depends upon whether you just want to establish a framework for survival without living a survival lifestyle.

It also depends upon how willing you are to "make do." Those of us living in the country often "make do" for the simple reason that there is no financially viable alternative. For example, one of our cars is 5 years old, two are 25 years old (they are all used for different purposes) and my main truck is 19 years old. They've been well taken care of and should last many more years. Same thing with chain saws – one is 2 years old, one is 5 years old and two are 29 years old. Why replace them when they run since the money can be used for something else... and I don't believe in debt.

So there you have it. Time is getting short. Let me close by saying that I intentionally haven't provided a book list and only one Internet link. Most of my books are old (like me) and there might be difficulty getting them. As far as the Internet goes, I think it's far better for each individual to do his/her own searches since what might be of interest to me might not be to you.

Be that as it may, here is "the" link: [http://www.fastonline.org/CD3WD\\_40/CD3WD/INDEX.htm](http://www.fastonline.org/CD3WD_40/CD3WD/INDEX.htm) (A companion link is <http://www.cd3wd.com> but the titles are not visible unless you download each section.) This will take you to a page containing about 4,000 titles, a total of 13 gigabytes. It can be downloaded a book at a time and given its scope, you will probably want to put it on a flash or external drive and then select what to print out (see below). Most of the material is oriented toward the third world; perfect information for a homestead.

One last, last thing: On Internet information, print it out and put it in a notebook(s) when possible. Information comes and goes. If you only download it your hard, flash or thumb drive, there is no guarantee that your computer will still be working when you want it. You can also just sit in a comfy chair and peruse printed material and it requires zero technology to assess regardless of where you are. I'm not saying this for effect. I have five 4", 3 ring notebooks of stuff relating to survival; certainly over 2,500 pages. The power can go out and it's there. I can throw it in my truck and not break it. And, because each one has a contents page, stuff is easy to find.

Happy Homesteading!



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