

Where to place housing for people with environmental sensitivities (MCS/EHS)

Location is an important factor for a successful housing project for people with chemical or electrical sensitivities. This article discusses what to consider and issues to be aware of.

Keywords: siting, environmental housing, healthy housing, chemical sensitivity, MCS, electrical sensitivity

Location is important

Whether you are looking for land to build environmental housing, or are trying to find a suitable existing building to convert, the location is a very important factor.

The perfect place does not exist and there is not even a general agreement of what is perfect. Some sensitive people feel best in a dry desert, while others feel best on a coast or by a large lake. Some prefer high elevations, while others get elevation sickness.

The desert is popular among severely sensitive people in the United States because of the dry air, the less vegetation, pollen and mold, the few flying insects and the lack of agriculture. But then there is the dust in the air, the relentless sun, the hot summers and smoke from wildfires.

Some people have a hard time seeing themselves moving away from the comforts of a big city, while others love the peacefulness of open country.

Even when these overall choices have been made, every site will be a compromise. Some features may exclude each other, such as having public transport or a store within walking distance, but with no traffic fumes and little electropollution.

Decide whether to focus on MCS, EHS or both

It is mostly people with severe environmental sensitivities who need special housing and who are willing to relocate long distance. People with severe environmental sensitivities often have both chemical sensitivities (MCS) and electrical sensitivities (EHS). One of these illnesses often dominates, but it is

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prudent to accommodate both to some degree, even though the focus of the project may be just one of the illnesses.

It is possible to create safe housing that caters to people with both severe MCS and severe EHS, but that makes everything more complex. However, accommodating the milder versions can be done with simple measures, if considered in advance.

Siting in a town or urban area

Many projects have been sited in a city. The drawbacks are obvious and may exclude people with severe sensitivities. Look for locations that are adjacent to

- city park or green space
- school grounds
- single-family residential area
- small retail (strips of shops)
- small office park

What to avoid in the city:

- major road
- transmission tower
- tall power line
- transformer station
- airport
- railroad
- laundromat (private or public)
- gas station
- car repair, body shop, etc.
- golf course
- chemically-intensive landscaping
- smoky restaurant (BBQ joint, etc.)
- polluting industry
- loading docks

Walk (don't drive) around the neighborhood to get a feel for its character and be on the lookout for problems. Is it an area where all the lawns look so perfect they must be sprayed on a regular basis? Perhaps this is even required by a homeowner's association?

What kind of businesses are there? What sort of pollution do they generate?

Do they do aerial spraying for mosquitoes?

Are there any large transmission towers nearby? They are sometimes mounted on water towers or other tall structures. They may even be camouflaged as trees or hidden inside church steeples. Schools often host such a tower. A detailed article on evaluating the EMF problems in a neighborhood is available via a link at the end of this article.

Visit the area multiple times, both daytime, evening and weekend. The neighborhood can change character depending on the time of day and week.

A harbor may be a poor neighbor if it serves larger ships. Ships burn low-quality diesel fuel that pollutes the air and there may be a lot of noise at night. The ships also have powerful radars they tend to leave on while in port.

Careful siting and design may help reduce the impact of a city location. The Raintree project in Dallas converted one two-story apartment building that was at the rear of a campus of apartment buildings. It was up against an urban greenspace on one side and a school playground on the other. The Haubitzen project in Sweden was also on the edge of other apartment buildings with a forest on the other sides. The project in Zurich, Switzerland was on a hill above town and up against a park that covered the top of the hill.

Ecology House in California and two projects in Dallas had an interior courtyard which all doors opened into. The idea was that the air in the courtyard would be less polluted than on the street outside, since it would mostly get fresh air from above.

If the whole building is shielded against radio waves, an enclosed courtyard should have a reduced radiation level as well.

Air cleaners inside each apartment can help reduce the air pollution, but some people do not tolerate the filter materials, the noise or the electromagnetic radiation from air cleaners.

Siting in the country

A country setting can offer better air quality, less electropollution and lower project cost. It may be financially feasible to build separate cabins on a larger lot. A country setting may be the only one that will work for the severely electrically sensitive.

Look for places adjacent to:

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- ranch land
- organic farm
- nature preserve
- empty government land
- residential area on large lots

What to avoid in the country:

- mining
- oil and gas wells
- railroad
- pipeline
- underground petrochemical storage
- landfill/garbage dump
- military installation
- wind farm
- solar thermal power plant
- golf course
- tall power lines
- tall transmission towers
- microwave links
- pig farm
- feed lot
- agricultural fields
- truck stop

A forested area can work well. A dense layer of trees can dampen wireless signals as well as reduce noise. But there shouldn't be trees too close to the building as forests tend to be moldier than open land because of dead leaves on the ground and less sunlight to deter the mold. In areas prone to wild fires, such as the American West, a forested location may be too risky as burnt land will send soot into the air for months afterwards.

Drive around the area to look for potential trouble. If it is a farming area, do they grow crops that require a lot of chemical spraying, such as cotton and wine grapes? Find out if they spray the fields from airplanes.

Mining operations are generally bad news. They often ruin the ground water, pollute the air with toxic dust, and are noisy at night.

Military installations can generate a lot of radio-frequency radiation, noise and various kinds of pollution. In the United States they are largely exempt from

environmental regulations and sometimes pollute the ground water with leakage from underground storage tanks.

Oil and gas wells are usually a problem, as they tend to leak gasses into the air. These leaks can be quite substantial in areas with a lot of wells, especially if the operator doesn't actively try to plug the leaks. In some fields the excess gas is burned off, which is better than letting it leak.

Some countries, including the United States, allow fracking when drilling. This can pollute nearby ground water wells.

Living near a small and old oil field, with just a few pumps and no risk of future drilling, may be acceptable.

Pipelines are used to transport natural gas, fuels and other substances over long distances. They have a tendency to leak or even burst sometimes. This can cause a major fire, pollution of the air and of the ground water (tap water). Pipelines often carry a current to protect against rust, or because of stray electricity, which means they radiate electromagnetic fields.

Pipelines can run along a major traffic corridor or cross country. They are usually buried; look for scars in the landscape and the occasional markers.

Compressed natural gas, propane and other chemicals are sometimes stored deep underground in caves usually made out of salt. These facilities can occasionally leak and are difficult to patch up, so they may leak for a long time.

Old landfills are sometimes covered up with a thick layer of soil on top and look innocuous but methane and other gases from decomposing matter can still be a problem.

Wind farms are not good neighbors as they produce various noises and vibrations (infrasound) that are a problem for sensitive people. The spinning blades and flashing lights can also induce seizures in epileptics.

Solar thermal power plants work by using the sun's heat to generate steam for a turbine. They use toxic oils to transfer the heat from the solar collectors to the steam generator. In 2015 the plant at Gila Bend, Arizona leaked for many months. The non-EI neighbors complained about the stench, but were ignored until the regulatory agency eventually made the plant clean up its act.

Industrial size pig farms can be a problem in areas with lax regulation, such as the United States. Some of them use large evaporation ponds to dry out the enormous amounts of effluent, which can sometimes be smelled more than a dozen miles downwind.

Look at the website of the local newspaper or chat with the local people to see what projects are being planned. Some industries like to place their worst projects in poor rural areas where the locals are unlikely to mount much resistance and the politicians are easy to convince.

If your project will need its own well, find out about the local ground water. Does it have a lot of arsenic or other toxic minerals in it? The neighbors may know, or ask any nearby water company.

Rural areas have fewer services than in the cities. One particular limitation is health care. There will be fewer doctors to choose from, the quality of their services may be lower and they may be more conservative and resistant to accommodating the needs of the environmentally ill. A town with a large selection of doctors should be no more than two hours away, preferably a college town with a major hospital.

Remote locations

Remote locations are places well beyond commuting distance to any major town. There is probably a small town in the area that can offer groceries, but services are limited.

A remote area can offer exceptional air quality and low electropollution, especially if going beyond the electrical grid. Land prices will be low, making it feasible to buy a large piece of land as a buffer. An example of a remote location is the project in Snowflake, Arizona. It is placed in a rural neighborhood of environmentally sensitive people. That makes the place seem much less remote.

Another remote project was a small camp near Questa in New Mexico. It had a handful of trailer sites and two cabins, one of which the owner lived in.

The more remote the location, the fewer people will move there and those who do will be the most sensitive. Those people will have trouble with sharing walls with other sensitive people, simply because of incompatible sensitivities (example: one person must have an air cleaner, while the neighbor can't stand the noise or EMF through the wall or wiring).

Remote locations could consider starting with some camp sites and then build individual cabins.

The neighborhood will change

A housing project is likely to last for decades. Much can change in those years. The empty lot next door will suddenly be built upon; the friendly non-toxic neighbor moves out and is replaced by someone who is hostile towards environmental issues; the quiet road becomes busy with traffic, etc. Don't assume things will stay the same.

It can help to locate the project in a slow-growth area, or at least the side of town that seems to grow slower.

Zoning restrictions

The project may run into zoning restrictions, though it is often possible to get a zoning variance.

Zoning is used in many areas to separate residential housing from retail and industrial operations to limit noise pollution, air pollution and other impacts. Some rural areas do not have zoning, but many do. Virtually every town and city has zoning (Houston, Texas is a notable exception).

Zoning may prohibit apartment buildings in areas with single-family homes, which may be the best place to locate an EI apartment building. Given the special need, it may be possible to get a zoning variance. This requires a public hearing before the zoning board. Some boards require a full set of architectural drawings to consider the project, which may be too much money to risk on an uncertain outcome. Other zoning boards are less strict.

The Rocking R Ranch project in Snowflake, Arizona was built on a 40 acre (16 hectare) lot that was zoned for just two homes. The project would have five homes in total. They got a zoning variance by promising to place the buildings so they were less obtrusive in the landscape, i.e. not built on top of the ridge and also placed close together (25 ft/8 m apart).

Be prepared for people at the hearing to be ignorant and afraid of their new neighbors. Reassure them that you are just normal people with a difficult disability, not crazy people who may abduct their children.

Access to shopping and transportation

Access to shopping and public transportation can be a vexing issue, but it may not be. It is also a cultural issue, with people in Europe having different expectations than those in North America.

People who do not have a car may want to have a grocery store and post office within walking distance (perhaps bicycle distance). This can work well in a very small town, where the apartment building could be placed on the edge of town. People walking to the store could use a small two-wheel cart to transport their groceries. Such carts are sometimes used in urban Europe and Japan.

In urban areas it may be possible to site the project up against a city park or green space, while still be near stores.

Walking access is a nice feature, but it may come at too steep a price for air pollution and electropollution. A willingness to compromise may be needed, such as shopping just once a week and shopping by mail order. Many severely sensitive people do this anyway to reduce their exposures.

A housing project where people live long term will foster some sort of community where people may help each other. We see that in the projects in the United States where those who have cars may help out those who do not, sometimes by providing shopping service or taxi service for pay, or just taking people along when going shopping anyway. The passengers may make a donation to cover the fuel cost to keep it an unofficial arrangement. In America, most environmentally sensitives have their own car, which is often older so it is less toxic and less radiant.

Some areas are served by a handicap van service, though it may only be usable if it will make trips limited to MCS/EHS passengers. It may be possible to have a scheduled weekly trip.

Some rural areas with many seniors may have a local person who makes a little extra money driving people around.

Look for creative solutions to a transportation problem.

The rural communities in Texas, Arizona, New Mexico and West Virginia are often an hour away from shops with organic food. In some cases, people drive for up to two hours for shopping, but that seems to be the outmost acceptable for weekly shopping. A major reason the Escalante House project in southern Utah didn't get off the ground around year 2000 was lack of people willing to move to

such a remote location (some people there did monthly overnight shopping runs to Salt Lake City, about 250 miles (400 km) away).

A small community in Texas considered flying in groceries every two weeks. A local pilot liked to fly as a hobby and just wanted his expenses covered, but the community of four people was too small to make it financially feasible. There is also a risk in becoming dependent on one person's continuing goodwill.

Communications

The renters need access to telephone and internet services. It is preferable that they are both available through cables. Some renters will not be able to use wireless themselves and may also be affected by their neighbors' use of wireless, especially wireless networks.

If wired services are not available, it may be possible to use "fixed wireless" with a central antenna for the building and then cables to each unit.

Mail service

In rural America, it is common to have a box at the post office in town or a rural mailbox miles down the road. Many get along fine picking up their mail once or twice a week. We do recommend using a lockable vault mailbox to prevent theft. Such boxes also offer better protection against heavy rain.

Funding restrictions

The funding for the project may place restrictions on the location. An example is Ecology House, which was built with funding from the federal agency Housing and Urban Development (HUD) in the USA. The HUD funding came through a program that built housing for disabled people and one of their standard requirements was that any building they funded must have easy access to a bus route. HUD was unwilling to waive this requirement, which caused a lot of siting problems, but the Ecology House was eventually built in suburban San Rafael, California.

The housing project in Zurich, Switzerland, was supported by the city, which was willing to donate the land, but only from existing holdings.

Some financing may have other siting restrictions, such as the project has to be on a paved road and within reach of a fire station (typically 10 miles/16 km). Or it could be the cost of the building must not be much higher than the average cost for the area, i.e. siting in a poor rural area may not work.

Make sure you know how the source of funding may restrict the siting.

Getting enough renters

This author is familiar with sixteen housing projects, thirteen of which are/were in the United States. Some are in cities, others in rural areas. The rural projects tend to be smaller and more basic — many of them are cabins, trailers or just campsites for rent. The city projects are all apartment buildings.

Six of these projects are now closed for a variety of reasons. None of them appeared to close for lack of tenants, except the Swedish Haubitzen project that was so poorly designed that sensitive people couldn't live there.

Despite that there are so many people desperate for housing that doesn't make them sick, people can be very reluctant to move long distance. People want to be near their family and friends for their support.

City people are often reluctant to move to a rural area unless they really have to. Some of that is cultural; they are reluctant to give up the instant-access convenience of the city and move to what seems like a whole different country.

Attachment to the city can be very strong. This author was once contacted by someone who said she was absolutely desperate for better housing, but she couldn't leave New York. She could not part with the big city's myriad of cultural offerings, even though she admitted she had been too sick to go to any of them for several years.

Some people move to a rural area and love it, others never feel settled and keep wishing they could move back. Some do get better and move back after some years.

Visuals are important, too. If prospective renters can see a smokestack or a cellular base station several miles away in an open area, that can seem more threatening than all the invisible sources of pollution in a city.

More information

Please see our article about evaluating a neighborhood with regards to EMF:

www.eiwellspring.org/saferh/EMFevaluation.htm

For other articles about environmental apartment housing, including several case stories, see:

www.eiwellspring.org/multiunit.html

For articles about building and modifying environmental housing, see:

www.eiwellspring.org/saferhousing.html

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