

Intro to Permaculture Sector Compass Demonstration

Video Transcript

Sectors are the forces that move through our site that can be mapped as coming from a particular direction. Some examples of sector forces that enter a site are sun, wind, wildfire, cold air, pollution, water flow, public view, and nighttime lighting. Each site is unique and has its own set of conditions that need to be mapped, and we could never make a complete list of all the forces that could be mapped as sectors.

We have built an application to help you map the sectors on your site, and I will demonstrate making a sector map for a site that I designed near where I live in Corvallis, Oregon.

We'll start by mapping the direction of the winter sun, which is a very important consideration at 45 degrees North latitude. Mapping and designing around the sun sector becomes more important as you move away from the equator, because light and heat are at such a premium for a large part of the year. The sun sector becomes less and less relevant as you move toward equator, where sunlight is consistent year round, and there is no need to orient things towards the sun.

But here we are, halfway between the equator and the North Pole, so our winter sun sector is important. This pie slice represents the sunrise in the southeast in the wintertime, and the sunset in the southwest on the shortest day of the year, December 21st.

Now I am going to draw the summer sun sector. The sun appears to rise in the northeast and set in the northwest on June 21, our longest day of the year. This is important to map because it shows where the hottest solar aspect will be, where the sun sets in late summer.

This site's special circumstances are that it is surrounded by conventional chemical agriculture where they spray herbicides from airplanes in the springtime. It's pretty bad news. The winds come from the south and southwest in spring and summer so this is the area we most need to worry about regarding herbicide drift. This is also the most likely direction that we would get a wildfire coming from.

Cold winds can also blow in from the north during wintertime.

Because this site is nestled in the midst of conventional chemical agriculture, we also have the potential for pollution by pollen from genetically modified crops nearby. Genetically engineered sugar beets, wheat, and alfalfa are all grown in Oregon, and there was a big vote to ban all GMO crops in this county in November of 2015, which was defeated. So for now, this is an important sector to map, because GMO pollen blowing in with the wind would make this farm a poor location for growing commercial organic seed. Sometimes the sector analysis reveals a really important limiting factor for your site, so you can see how important it is to do an evaluation like this prior to purchasing a property.

We also have water draining into the site from the east and southwest, which can also carry in agricultural pollution.

The clients really like this view of the natural area, so we will add that to our sector map as well.

And the creek is a major wildlife corridor. We are going to label that wildlife corridor, as it really is a force that is moving through the site, although it is more difficult to represent with pie slices, so we're just going to mark the actual forested creek area itself.

So there we have it, the sectors for this site here, the directional forces coming into the site passing through the site from outside the site. We have a couple of text pages, one with more information to help you determine the sector directions where you live, and then another specifically on the sun sector, so please enjoy them and learn more about the sectors.