

Mega Fabs, Industrial Lands and the pursuit of the impossible!



In March of 2022, in an email to members, Friends of French Prairie said: “Virtually all the coverage of Intel’s recent decision to locate their mega-fab facility in Ohio has been built around a narrative of blame.”

The communication then went on to list an Op-Ed piece in The Oregonian blaming political leadership and Oregon’s “stringent environmental regulations, an anti-business political climate and a tax structure that increasingly discourages business investment,” and also quoted an Oregonian article that pointed out that “the Portland metro area only has one piece of industrial land over 200 acres”.

The blame game continues and now has moved into the campaign for Governor. On August 14 an Oregonian piece on the debate among gubernatorial candidates, focusing on their responses to the challenge of not losing mega fabs to other states, and quoting the three candidates blaming each other and past leadership.

What was missing once again from The Oregonian article and all the other pundits and politicians opining on the subject is the underlying reality.

Yes, indeed, Oregon lost out in the last mega fab contest to Ohio, and that led to all the blame gaming condemning Oregon’s regulatory structure, tax structure, and land use system. These are realities that must be addressed when any state is competing with any others to land a large development.

This subject is now heating up again given the \$280 billion in new federal funding for scientific research and chips manufacturing from the recently passed Inflation Reduction bill which funds improving competitiveness of America's chip manufacturing capability. What will soon emerge out of the discussions and debates about this funding is the so-called problem with Oregon's land use system and, as The Oregonian article repeatedly pointed out, the fact that "the Portland metro area only has one piece of industrial land over 200 acres."

It's time to be real. That reality should begin with a historical review. Competing to site fab plants isn't new. In fact, in the halcyon days of the 80's and early 90's there was even a term for it: The Silicon Forest. That referred to the cluster of hi-tech companies located in the metro Portland area. Competition for those sites extended to Vancouver, Salem and Eugene. However, it is a volatile industry, and the list of failures is substantial, including among the largest are Siltec/SUMCO in Salem and Hynix in Eugene.

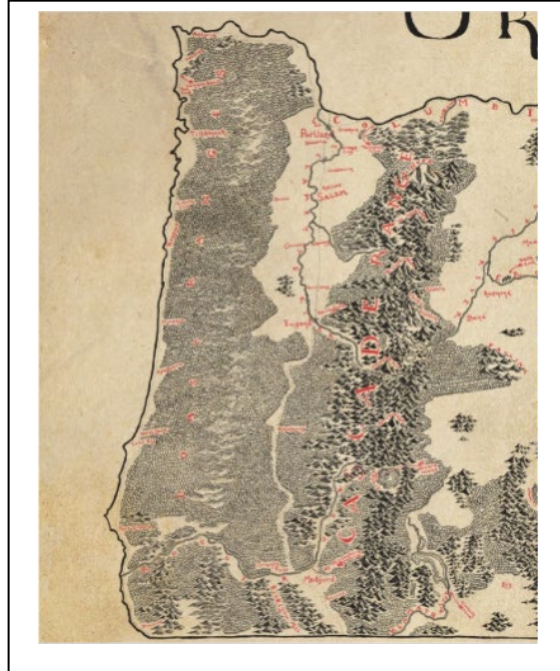
The fact that there are no 1,000 acre pieces of developable land in the metro Portland area is not the fault of the land use system, although Oregon's unique land use system is certainly part of the dynamic because it's designed to keep development within urban growth boundaries to prevent sprawl onto farm and forest land. It has done so since it was implemented in a manner that makes it the envy of many other states and has prevented the drive from Portland to Salem from mimicking that from Seattle to Olympia or from Los Angeles to San Bernadino!

The old adage says that you can't wring water from a stone. You also can't create more flat ag land. Both are critical resources that can't be replaced. The irony of high-tech development is that it doesn't require high quality, flat farmland, but that's what is desired because it's easiest to develop on. However, fab plants do require water. A little discussed fact is that the average semiconductor factory consumes 20,000 tons of water a day—the daily water use of a city of 58,000!

Oregon will never win a mega fab competition based on having one or more 1,000 acre shovel-ready and developable land sites when the primary criteria are good farm land and adequate water. The reason is simple: we don't have it.

Let's compare Oregon to Ohio, the most recent mega fab contest winner. For perspective, Ohio has a population of 11.7 million while Oregon has 4.2 million. That leads to the size of each state's congressional delegation: Ohio has 22 while Oregon has 7. That difference is known as 'political clout.' Ohio has 14.9 million acres of Prime Farm Land (high quality soil and adequate water). Oregon only has 1.2 million acres of Prime Farm Land. The numbers alone do not make for favorable odds.

Now consider where the majority of Oregon's Prime Farm Land is located? 78% of it (936,000 acres) is in the Willamette Valley where most of the population resides and most of the farming takes place. To put that in perspective look at a map that really illustrates the topographic contrasts



Map courtesy of Lord of Maps

We all think of western Oregon as verdant: green, moist and productive. It is, but precious little of all the land west of the Cascades is farmland, and farmland is where our food is grown. The Willamette Valley's annual agriculture production is \$2.3 billion, a sizeable part of the state's agriculture sector. Ag is a major part of the state's economy: 80% of Oregon's agricultural production leaves the state, bringing outside money into our economy. As long as Oregon's population continues to grow, so will the demand for food production, and food can't be produced on land that has been converted to urban industrial production.

Yes, Oregon has to deal with the geographic realities and is no longer in the position to compete for new mega-fab chip plants or most other massive industrial developments requiring large pieces of flat land and cheap water.

Oregonians, and especially the media and politicians, need to get in touch with that reality as well. Can we compete for small fabs? Absolutely. Can we compete for expansion of existing plants, so they don't relocate? Absolutely. But reality is what it is about available Prime Farm Land, and all the blame in the world won't change that.