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# Food 4 All

White Paper



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RESILIENT ECOSYSTEMS FOR THE KITSAP RESILIENCY PROJECT

## Abstract

Food is a basic, core need for all human beings. In America, we take for granted that food will be available and that we will have a wide selection of food from around the world at our local grocer. We believe that food will always be cheap and plentiful.

While globalization has many benefits, the globalization of food has created significant risks. Risks to local food supply, and through the commoditization of food, making price manipulation a factor in profit and production more important than human need. Other factors such as climate change are driving food shortages, the industrialization of agriculture, the use of chemicals now creating health and nutrition issues, and environmental impacts. Overuse of water resources are creating regional water shortages and long-term loss of agriculture.

Media fueled perceptions around food as a source of status has led us to assume that we have unlimited availability and selection of affordable food. This is a dangerous fallacy.

What does this have to do with Kitsap County?

Although Kitsap has many local farmers and residents with vegetable gardens, we still import most of our food from off the peninsula. We maintain about 3 days of food on our grocer's shelves. With approximately 266,000 people residing on the peninsula from Gig Harbor to Bainbridge Island to Port Gamble, in a disaster like the projected Cascadia Rising event or even a disruption like our recent snow storms, Kitsap County will likely be cut off from outside supply. It is just good practice to develop capacity, self-reliance and resilience. It has the additional benefits of developing local industry, jobs, diverse organic foods, and security.

## Problem

Food Security is an issue when you live in an area that can become inaccessible in times of disaster. All access points to and from the Kitsap peninsula are at risk of collapse, impediment, or other failure that will prevent reliable transportation. State and Federal Agencies, including FEMA have projected that due to liquefaction in the Gorst area the corridor between central and south Kitsap will fail as will bridges and the ferry system.

### **Cascadia Rising**

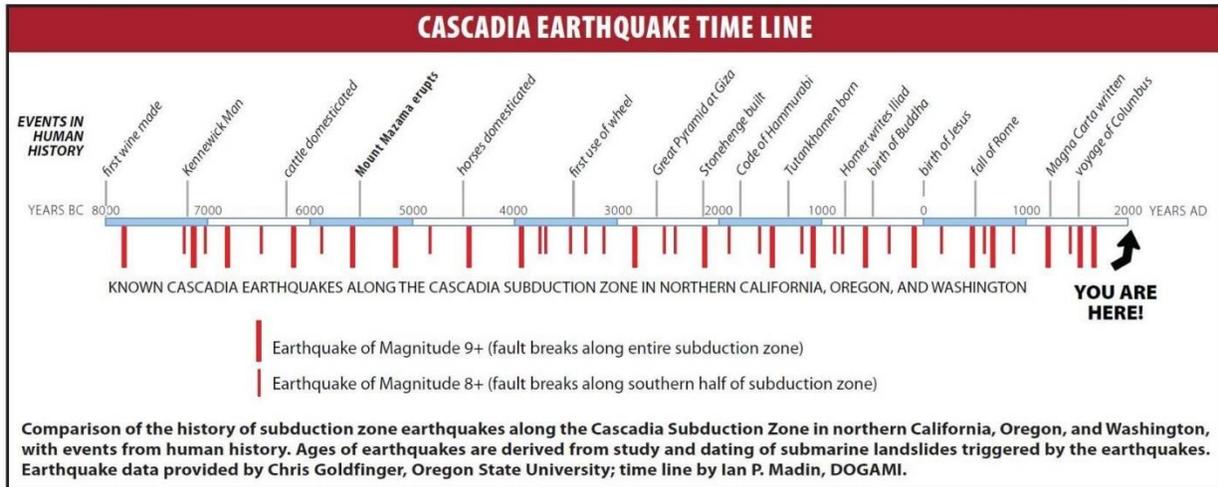
*“Just north of the San Andreas, however, lies another fault line. Known as the Cascadia subduction zone, it runs for seven hundred miles off the coast of the Pacific Northwest, beginning near Cape Mendocino, California, continuing along Oregon and Washington, and terminating around Vancouver Island, Canada. The “Cascadia” part of its name comes from the Cascade Range, a chain of volcanic mountains that follow the same course a hundred or so miles inland. The “subduction zone” part refers to a region of the planet where one tectonic plate is sliding underneath (subducting) another. Tectonic plates are those slabs of mantle and crust that, in their epochs-long drift, rearrange the earth’s continents and oceans. Most of the time, their movement is slow, harmless, and all but undetectable. Occasionally, at the borders where they meet, it is not.*

*In the Pacific Northwest, the area of impact will cover\* some hundred and forty thousand square miles, including Seattle, Tacoma, Portland, Eugene, Salem (the capital city of Oregon), Olympia (the capital of*

Washington), and some seven million people. When the next full-margin rupture happens, that region will suffer the worst natural disaster in the history of North America.”<sup>i</sup>

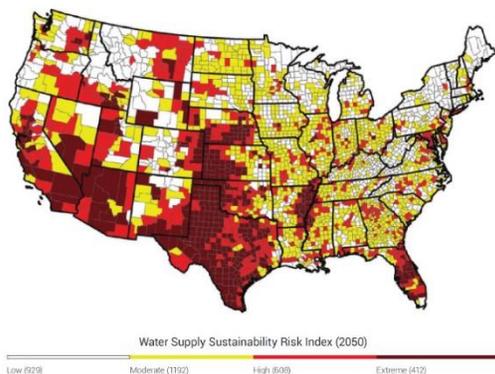
This is a pending reality and we have been in the window for some time, 2019 marks 319 years since the last occurrence, which was January 26<sup>th</sup>, 1700. One scientist quoted in the 2008 documentary, Shockwave, about the science behind the Cascadia Rising event said that “we know one thing for certain... every day that passes without experiencing Cascadia brings it one day closer.”<sup>ii</sup>

**CHART OF THE CASCADIA CYCLE:**



Whether you believe that Climate Change is man made or a cyclical event, there is little argument that our climate is changing, and weather patterns are getting more severe. California is looking at a major disruption in agriculture, as is the Southeast. More severe storms are rocking the United States and Washington State is now beginning to feel the impact as well, including record shattering snow, tornados, drought and a significant shift in the rainfall patterns. There are more issues at play than Cascadia Rising, and being resilient addresses all of them. In 2014 ASDA, a UK subsidiary of Wal-Mart, completed a study on food availability and discovered that 95% of it’s current resources were at risk due to climate change. This report spurred a flurry of activity in the grocery industry, with Costco leading, to identify secure and sustainable sources of food. The reality coming to light from business and science is that our assumed security around food does not exist.

**Background**



A group of businesses came together to address a serious and developing issue and formed a new business association named CASA. The issue that was being addressed is in Chihuahua Mexico and is focused on returning the ability to practice agriculture in a region that had lost 80% of that ability due to desertification. CASA developed a series of technologies and processes that can efficiently grow food in any region using a fraction of the water and energy used by traditional growing

methods. The CASA solution uses thermal mass, geothermal, solar, anaerobic digestion and a range of water processing and reuse strategies that make them both efficient and cost effective to operate, develop capacity locally and reduce the costs further by eliminating transportation.

**Important information regarding the CASA sustainable grow centers:**

- They are powered by renewable energy. They are extremely energy efficient and use geothermal to heat and cool and thermal mass construction to minimize heat gain or loss.
- They are water misers, using only about 10% of the water required for traditional agriculture. All water is reused and cleaned of all toxins in process and prior to release. Rainwater capture is an available option.
- They can be combined with anaerobic digestion systems to use agricultural waste, food and grease waste from local restaurants and bio-solids from wastewater treatment to produce additional energy and high value soil amendments for local reclamation projects.
- Localization of food production and efficient year-round growing reduces the cost of food and makes it competitive with imported food with minimal transportation costs and therefore a reduced carbon footprint.

## Solution

The obvious solution to the food problem is to produce food locally... That said being, there is a long list of issues beginning with who pays.

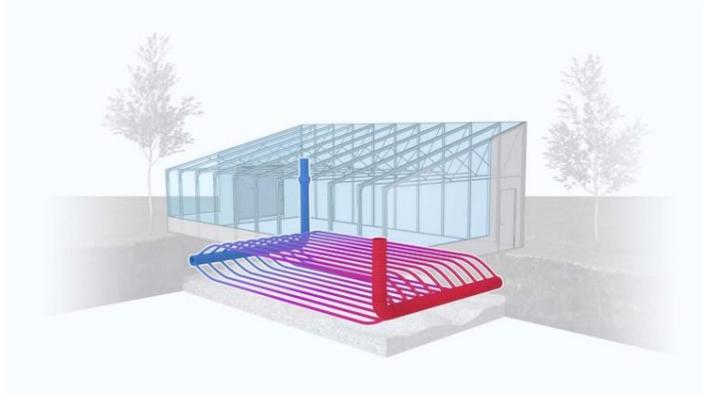


Here is what the Kitsap Resiliency Project is doing and how you can help make it happen.

The Food for All project, a sub-project of the Kitsap Resiliency Project, is targeted at developing the capacity to grow food locally that can provide local markets with produce and feed the people in a crisis.

We plan to accomplish this in several stages and hope to engage our farming community in the process.

1. Stage One: A fully functional grow center located in South Kitsap that will grow organic produce year-round. We are currently looking for a local outlet for the vegetables, perhaps the schools, or local markets. This project is in early stages and we will provide updates as it progresses.
2. Stage Two: A full scale growing center on 15 acres of land that can provide fresh, organic produce to thousands of people. This will be a private commercial project that has the caveat that during a crisis the food will be provided to the populace.
3. Stage Three: Replication throughout Kitsap County, providing a growing industry, jobs, economic benefits and healthy food and food security.

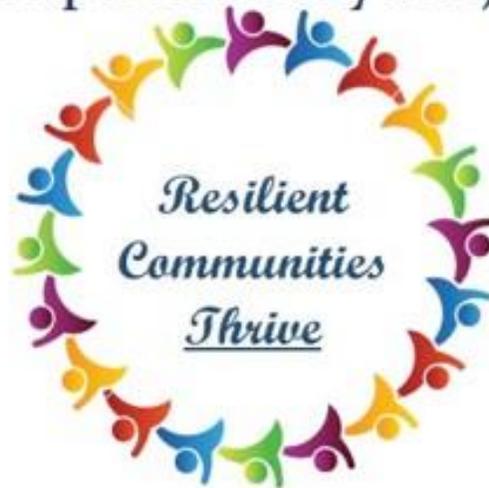


We are working to engage the markets and institutions as customers and create local industry, jobs, economic growth and food security. Engage in the Food 4 All project, learn about it, get excited about it, and talk about it.

Update: the first grow centers will break ground in 2019, and a group of Kitsap farmers are in talks to build a coalition of local farmers to manage them, extending

their growing capacity and diversity, beginning year-round production.

## Kitsap Resiliency Project



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<sup>i</sup> Excerpt from the New Yorker Magazine June 2015, The Really Big One.

<sup>ii</sup> Look for educational screenings of Shockwave around Kitsap, Kitsap Resiliency Project on Facebook