Sustainable Features and Projects at The Perennial

(as of Jan 2016)

Aquaponic Greenhouse: Scraps from the restaurant kitchen will be fed to worms and larvae that in turn will feed fish that will fertilize lettuces and vegetables, raised in our 2,000-square-foot aquaponic greenhouse in Oakland. (Aquaponic agriculture creates a symbiotic system in which the fish provide nutrients for the plants in lieu of the chemical traditionally used in hydroponic systems.) We'll also maintain a roof garden on site.

Perennial Grains: The Perennial has been working with Tartine Bakery to develop bread recipes using perennial alternatives to traditional wheat, such as Kernza, a naturally bred intermediate wheatgrass which boasts high yield, root-based carbon sequestration, and pest resistance. We are also developing other Kernza-related recipes on our own and exploring other perennial grains.

Climate Beneficial Meat: The Perennial is working with Carbon Cycle Institute and Stemple Creek Ranch to create a "carbon farming" protocol, in which cattle grazing on compost-treated rangeland encourage the growth of perennial grasses whose longer roots sequester carbon beneath the soil, keeping carbon dioxide out of the atmosphere. We are excited to be the first restaurant to champion and serve this meat. On the café side, Paramo is planning to serve milk from Straus Family Creamery, which has begun a carbon farming program as well, and five cents of every drink goes to supporting Straus's conversion of land to carbon farming.

Note: Local artist Wendy MacNaughton has illustrated the three ecological projects above for us in postcard format. She is also working on a large-scale painting for the dining room.

Zero Foodprint: The Perennial will donate a portion of proceeds to Zero Foodprint, a foundation that educates and enables restaurants to reduce their carbon footprints. Anthony Myint serves on the advisory board of Zero Foodprint along with Chris Ying, editor-in-chief of food magazine *Lucky Peach,* and Peter Freed, former director of the environmental consultancy TerraPass. The long-term goal of Zero Foodprint is to establish environmentalism as a recognized value in the restaurant industry, along the lines of "organic," "local," and "free-trade."

Kitchen Design and Practices: The energy-efficient kitchen was designed in consultation with the Food Service Technology Center.

- CaptiveAire Hood: Whereas conventional hoods run constantly whenever food is cooking, the hood at The Perennial uses a new technology called "Demand Controlled Kitchen Ventilation" or "Demand Ventilation Control," which sense the air above the stoves and turns itself on and off as needed, saving a lot of energy. It won EnergyStar's emerging technology award for 2016 because "Commercial kitchen ventilation is the single biggest user of energy in a commercial food service facility. To reduce that energy consumption, Demand Control Kitchen Ventilation (DCKV) provides automated continuous control over fan speed in response to temperature, optical, or infrared sensors that monitor cooking activity or direct communication with cooking appliances."
- Food waste management: We are taking kitchen scraps to our aquaponic greenhouse, reducing food waste and greenhouse gases more effectively than regular composting.
- Combi oven: This oven can produce steam heat, dry heat, or a combination (that is, a "combi"). It's EnergyStar certified and 30% more energy efficient than standard equipment (according to Rational, the producer).
- Eco-grip flooring in the kitchen: made from 100% recycled material and doesn't need to be hosed down like regular kitchen mats.
- Turbopots: Lined at the bottom with ridges to create heat sinks, these pots are twice as efficient as regular pots, cutting the time to boil 1.5 liters of water from 12 minutes down to 6 minutes.
- Responsible meat: It's important to more than just the prime cuts of the animals we eat, and our chef, who has a experience as a butcher, will be starting from large cuts of animals. We'll also be using meat in moderation, with an eye to popularizing a mode of eating that de-emphasizes meat without eliminating it.

Bar Design and Practices

- Walk-in refrigerator: Tucked into the L-shaped bar is a walk-in refrigerator with a second internal room set to wine-cellar temp (55 degrees), because it's more efficient to have one large walk in with two compressors than to have many small compressors (as is typical in a bar outfitted with multiple lowboy refrigerators). The bartenders can reach through the windows in the refrigerators on either side.
- Wine and pre-batched cocktails on tap: Cuts down drastically on both packaging, energy, and waste. We can keep the cocktails at the right temperature and don't have to dump ice after each shake.
- Local and/or sustainable spirits. Distilled alcohol production is inherently wasteful, as only a small percentage of a fermented mixture is captured as distillate. Plus, arcane liquor bottling laws prohibit reusing bottles or selling large formats like kegs. Therefore, we look for producers that find creative ways to reuse their waste solids, grey water, and undesirable distillate cuts. Using

"head" and "tail" cuts to clean and disinfect equipment, using spent agave fibers to make labels, using spent grain mash as cattle feed and watering crops with runoff are some of the ways spirits companies mitigate their carbon footprint.

- Water still. Bar Director Jennifer Colliau is water distilling citrus zest before using the fruit to make juice and dehydrated garnishes. The idea here is to (1) improve on the traditional, highly wasteful use of citrus fruits in bars and (2) make something unique and delicious. The water still produces hydrosols, and essential oils, which can be added to our dehydrated citrus garnishes for aroma.
- For some drinks, we will be freezing ice in glasses, rather than using cubed ice. For other drinks, we are using cobbled ice, which is a really fun texture and also more efficient than regular ice cubes.
- Straws: When straws are appropriate, drinks will be served with straws made of actual straw, rather than plastic. Bartenders will use metal straws and spoons, rather than disposable utensils.

Dining Room Design

- Architecture/Woodwork: The Perennial was designed by Paul Discoe, who works exclusively with reclaimed lumber. Paul Discoe Design built our Douglas Fir bar, poplar chairs, cypress and black acacia tables, and pretty much all of the wood in the space--including posts made of wood recovered from the Transbay Terminal. Our dining room ceiling is woven from wood shavings produced when milling our posts; the raised beds at our greenhouse were built from the scraps made in the production of our dining room. Paul also designed The Perennial's aquaponic greenhouse, which is located on the same property as his studio.
- Rug: In the center of our dining room, we have a 100% recyclable rug, made by Interface from 100% recycled fibers. (Interface is also experimenting with recycling used fishing nets into carpet fibers. Discarded fishing gear comprises about ten percent of all marine trash, according to the UN.)
- Recycled Tile: We worked with SF-based Fireclay Tile to make utensil rests from recycled glass. And Fireclay's locally produced recycled-claybody tiles are in our bar, kitchen, vestibule, and bathrooms.
- Plaster: We worked with Rye Hudak from Level 5 Design for our eco wall finish, made from marble-processing waste.
- Eco-Glass: The glass in our vestibule is made from bottles and jars from municipal recycling bins and internal recycling by Bendheim Glass.
- Lighting: We worked with Anna Kondolf Lighting Design and Neidhardt Inc to create a warm, inviting, energy-efficient, locally-produced, all-LED lighting system.
- Paper: Our menus, explanatory cards, and so forth are printed by local printer Greener Printer on 100% recycled material Neenah paper. When our menus are worn out, we feed them to the worms at our aquaponic greenhouse.
- Bar stools and café chairs: Made by Emeco, the Alfi chairs and stools are made from recycled materials.
- Tableware: Our plates are made from a local (Mendocino) clay body by our

friends Jay and Rie Dion at Atelier Dion. Our napkins are 100% cotton and cleaned by a green laundry service; when they're worn out, we feed 'em to our worms. The silverware is all re-used.

- LEED: We have not completed the LEED process, but we expect to be certified Platinum.