

TransparentSea LLC Project Description for Conditional Use Permit Application

- 1) **Business Summary-** TransparentSea LLC will be an indoor aquaculture (or aquatic agriculture) facility. Its crops will be the only available clean, sustainably raised shrimp and seaweed made for human consumption. Production will occur indoors and the equipment used will be similar to that used at an aquarium. As the name suggests, our brand will be focused on quality served with consumer education from production to plate and eco-friendly seafood purveyance.
 - a) **The Team-** Our founders are Stephen (Steve) Sutton, and Douglas (Doug) Ernst. Steve is a former government fisheries conservationist turned aquaculture scientist, with a Masters of Science from University of Miami, FL. Doug is a PhD and former University professor at Oregon State. He specializes in cutting-edge shrimp farm engineering with focus on systems, efficiency and engineering. Both are driven by a passion for protecting the ocean.
 - b) **The Mission-** to relieve pressure on the oceans and environment by conducting food production in under-utilized spaces. We'll be near to markets but not interacting with the environment directly. In doing so, we also greatly reduce shrimp production's carbon footprint by over 99%. Simultaneously, we want to provide healthy shrimp and seaweed with proof of cleanliness and humane treatment.
 - i) **Community Activation-** We will engage the community in several ways.
 - (1) Work with local partners to promote sustainable seafood production through: art for all, farmers markets, education events for children, farm-to-table dinner events and other opportunities that arise. These will occur OFF SITE, but are an important part of our mission.
 - (2) Provide jobs for local community members. We intend to employ 6-8 individuals immediately and expect for this amount to double after the first two years. We have already met with the Long Beach Institute for Innovation and Research of CSULB, and discussed the project Pacific Gateway for employment and training opportunities for locals.
 - (3) Give talks offsite such as "1 Million Cups" and "Science Cafés" to share our knowledge of international seafood production with the community.
 - (4) Look to engage schools in underserved communities, giving speeches, demonstrations and talks to classes in the community.
 - ii) **Resource Awareness and Technological Advancement-** We want to change the industry while working with municipalities in a natural resource-limited area.

- (1) We will re-use 99% of our water. Natural biological waste from shrimp farming will be broken down biological filters that use naturally existing bacteria, and then sterilized. These harmless nutrients are then fed to California seaweed species. We have engineered systems and components that use less energy and less water than all other types of shrimp farms.
- (2) Once established, we plan to re-invest a portion of revenue to Research and Development, such that we can use alternative energy sources to power equipment, for example.
- c) The Market- While the products from this small facility will initially be a premium product, the eventual goal is to organically grow to the point that we can become more efficient and take advantage of the economies of scale, lowering the price and offering more products to the entire seafood consumer community. We will be selling our products at farmer's markets around L.A. and L.B., and to several restaurants in the area.

2) The Building: 625 W. Anaheim Street a.k.a. 'Ice House'

A shipping and distribution company leases the current space, and it is zoned for General Industrial Use. For this project, ~23,700 square feet of industrial warehouse space is to be converted into a recirculating shrimp farm. We will be one of the tenants in this building, and occupy most of the first floor.

- a) Inputs and Outputs- We will use power, some city water (~3,000 gallons per day), and a reasonably small amount of natural gas to keep our culture water warm. We are filing an Industrial Wastewater Discharge Permit with LA County and Long Beach Water District alongside this permit. This will contain the exact specifics of our water use and discharge, but they have mentioned in preliminary emails that we will fall well below the expected output for this building.
- b) Tenant Improvements- We intend to work within City of Long Beach guidelines to make some minor tenant improvements to the space. It is expected that we will have further discussion on this topic.
 - i) Examples include minor concrete and asphalt repairs as well as cosmetic improvements like painting and cleaning.
 - ii) We will be adding a wheelchair accessible ramp to west entrance/exit of the space.

3) Operational Activity and Neighborhood Interaction

- a) Hours of Operation:
 - i) Equipment: Living crops never take time off from eating, breathing and growing. As such, our pumps and much of our equipment will run 24/7, not unlike a refrigerator. Electric pumps, filters and sterilizers will produce some sound, but this will be confined to the inside of the

building. For the safety of our crops, all regular ingress to the culture areas will be limited to specified doors and monitored. Sound will also be trapped inside these doors.

- ii) Staff: Equipment will be automated, increasingly as time goes on and more revenue can be redirected. It is expected that at any given time, a portion of our small staff (2-3 people for 23,700 sq. ft.) will be active inside the building from the hours of 6 am until 6pm. In the first year, it is possible that 1 team member will intermittently visit the facility during the night to double-check system functionality.
- iii) Deliveries: All ordinary pickups and deliveries will be done with small trucks or vans and will not occur at night. These will be delivery of materials used in the farming process (salt, shrimp feed, new or replacement equipment, etc.). This activity is estimated to be less than 5% of the current traffic to this building in terms of volume.

b) Ventilation/ Exhaust: Like most industrial facilities, we will have ventilation bringing in outdoor air and exhausting air from the facility. Similar to an air conditioning vent, we the air we exhaust will potentially have less carbon dioxide than incoming air due to the aerobic beings inside, but will be free of toxic gases or anything damaging to the environment.

c) Light/Smell/Sound: Lights will be used inside to culture shrimp and seaweed, and low level lights will be on at night. Again, this will be comparable to other industrial buildings where they have indoor safety lighting. Our system is designed using Clearwater technology, so we intend for minimal microalgae growth that could produce light odors related to production. Any samples taken of shrimp or seaweed will be processed, frozen and removed from the facility to eliminate the threat of odor, and leave the neighborhood virtually unchanged from how it is today.

d) Mitigation of Potential Health Hazards when handling seafood: Due to the rate at which it expires after harvest, we acknowledge with eyes wide open that we will be producing and handling seafood. This will be done in accordance with USDA, HACCP and City of LB Department of Health and Human Services regulations and guidelines.

4) Photos of Current Space:

Please see attached .pdf file for Photos of 625 W. Anaheim St. Feel free to request more photos or photos of exact locations.