

HARVEST

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Harbor and River Vessel Transport Company, Draft Business Plan

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ENVIRONMENTAL, SOCIAL AND ECONOMIC BENEFITS OF HARBOR/RIVER SHORT SEA SHIPPING

A Sustainable Transportation system allows affordable access to transportation modes, which are consistent with ecosystem health and support low impact economic development.

Short sea shipping is any movement of freight by water that doesn't cross oceans, on freight ferries, short-haul barges and various other marine vessels. Both public agencies and private companies are investigating the potential economic and environmental benefits of transferring more cargo from road to sea. The New York metro region, home to the Port of New York and New Jersey and an extensive network of waterways, seems well-suited for this mode of freight transport. The Port of NY/NJ is the largest port on the east coast and the third largest in the US. In 2010, over \$175 billion worth of cargo flowed into and out of its terminals. For the freight that is offloaded at these facilities, this is just one stop in an extensive intermodal distribution chain. In New York City's metro region, 80% of freight transport is carried by truck, a practice that wears on our roads, congests our thoroughfares and increases air pollution.

- HARVEST has benefits in several areas: food, health, responsible consumption, community development, citizen participation, sail training, regional planning, and job creation (in farming, logistics, ship building and maintenance among others).
- The possible gains by incorporating the HARVEST transportation model and local food and power include: improving the diet, disease prevention, and recycling of organic waste and reusing inorganic waste, carbon sequestration, reduction in costs associated with transporting food ; responsible consumption, increasing self-esteem.
- Local agriculture and “floating farmers markets” can have educational and therapeutic purposes by inviting us to reconnect with the cycles of nature. HARVEST’s business model promotes the preservation of biodiversity and agricultural knowledge that many people still have, and re-establishing the link between urban dwellers and their food.
- HARVEST is a new venture founded on the principal values of economic, social, and environmental sustainability and investing our experience, skills, and resources in opportunities that support these values. HARVEST will strive to provide a unique culture for all our employees and stakeholders of creativity, progressive innovation, and visionary thinking.



Proposal

HARVEST: Will be a short sea shipping business delivering local produce and seafood throughout the New York/New Jersey Harbor. HARVEST will be a “for benefit” company¹ based on the Farm Boat² concept in Seattle and the Island Market Boat³ in Maine.

Historically, thousands of vessels plied the waters to and from cities on the Harbor and the farming areas of New Jersey and the Hudson Valley delivering fresh local farm produce, fish, shellfish, and passengers to ports along the way. The Hudson River and the Harbor was once a bustling highway linking even the smallest communities into a web of regularly scheduled routes. Farmers, dairymen, and oystermen relied on this vibrant and diverse fleet of vessels to bring their goods to market and to receive supplies. The schooners, sloops, and steam boats provided a unique way of life for early inhabitants. For those who worked the inland waters of the Northeast, the romance of the sea was a common element in their lives.

Today, the water highways still exist and need to be reinvigorated. Maintaining maritime trade routes is more than just a celebration of tradition. In a carbon constrained future sustainable water transport will be necessary and in the event of a regional disaster water-based community links can serve as vital infrastructure to the NY/NJ Harbor region.

The Urban Assembly New York Harbor School, maritime academy students, interns, and volunteers will be part of the crew and will learn about the logistics of coordinating and transporting cargo between local ports and communities.

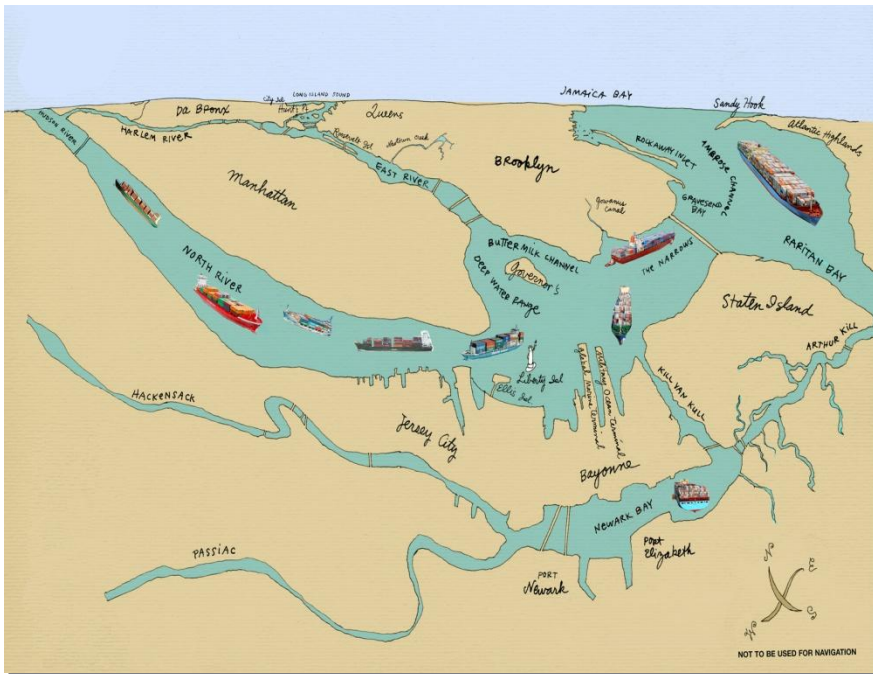
¹ <http://www.bcorporation.net/>

² <http://www.farmboat.org/events/seattle/waterfront-floating-market/>

³ <http://www.maineboats.com/online/harbor-features/market-boat>

HARVEST will facilitate the delivery of locally grown agricultural products, local seafood, pelletized biomass, artisan crafts, and perhaps containerized urban compost as a back haul to and from New York and New Jersey farming and fishing communities.

The proposal is to build a seasonal or year-round transient floating farmers and fishermen's market fleet that visits public docks in many New York Harbor waterfront communities selling fresh produce, seafood, and other local products right off the boat. HARVEST's mission will be to support sustainable local agriculture and inspire facilitate healthy eating, as well as to preserve and share the maritime heritage that was once an essential element of the Hudson Valley, Long Island, and Northern New Jersey.



Tapping into a Cultural Movement

HARVEST™ is a reaction not only to the environmental and food equity needs of urban New Jersey and the Metro New York City area, but to a new brand of locavore food culture. The founder brings distinctive expertise to this venture and has his hands on the pulse of the new frontier in sustainable living and eating while as a former vessel captain, educator, entrepreneur, and environmental advocate has the experience to mobilize a region-wide network to enable this enterprise to succeed.

- Local agriculture is experiencing a major upsurge around the world. From pressure to allow chickens on small urban lots, through public permaculture food forests in, to new community garden projects, and an exponential increase in local sourcing by restaurants, and through farmers markets.
- Growing food is no longer something that's only being done "out there" in the country.
- Cities are islands of near-total food dependency, in the midst of an ocean of mass-scale, petrochemical-reliant, monoculture food production. And the global industrial food system, which has so effectively systematized and expanded the production of all major food staples, is nearing collapse.
- Around the world, aquifers and soils are being depleted, land is being salinized and accumulating toxic pollutants, genetic drift from GMOs is threatening the viability of seed crops, bee colonies are collapsing, deserts are encroaching on productive land, food transport costs are rising exponentially at the same time as food travels ever farther from field to plate, and major crops are experiencing catastrophic failure as a result of climate-change related weather patterns.
- Cities benefit from the increased convenience, beauty, and healthfulness of growing our own food, and accessing nearby food sources; we may actually need it. In the middle of the last century, nearly 80% of the food consumed in the New York/New Jersey metro area was grown here; now that figure is closer to 15%. This makes us extremely vulnerable to any kind of interruption in the food supply.
- As climate change makes extreme weather events more frequent and peak oil makes fossil fuel costs rise exponentially, it seems unlikely that we can continue to have food on our plates that has traveled an average of 1500 miles.
- The need to create green jobs, reduce food miles, get farmers and consumers together, help re-build the local food system, and support regional processing, distribution, and marketing.
- A focus for activists to drive the new food politics on economic and ecological grounds
- Urban designers and planners using food and the way it gets grown, processed, packaged, marketed, distributed, eaten and recycled to reshape our cities.
- Community developers tying health, environment, education, employment, transportation, waste recovery and more together with local food .

The Business Advantages of HARVEST™

HARVEST operates in part like a farmers marketing cooperative to promote and coordinate the delivery of local foods from farms and other food producers to waterfront communities on a regularly scheduled basis. Open to the public at each port of call, these boats will serve as both floating farmers markets and part of a larger cultural change – fostering civic involvement and contributing to the unique character and vitality of NY/NJ Harbor waterfront communities.

- The trend is for ecological and sustainable growing techniques have created a demand both for fresh local produce both in city food deserts, and in upscale markets and restaurants.
- Local farmers can have stronger relationship with chefs and restaurants that are interested in fresh, organic and locally grown food.
- Produce and fish is sold as close to possible from harvest preserving high quality and eliminating loss in transport and storage.
- 100% demand is within close proximity. Some significant amount of sales can be made at the dock or nearby using bio-diesel or human powered vehicles. By contrast, trucking from the Hudson Valley or Long Island (or for that matter from California or South America), is more economically and environmentally expensive. Reduced distribution costs will allow for a higher profit margin on sales, passing the efficiency onto the farm and the consumer.
- With a projected 5th year revenue \$5 million, HARVEST would represent about 1.5% of the New York Metro area's approximately \$300 million dollar organic food industry, however it can have a significant impact on the food supply in the municipality in which the facility(ies) are located.
- HARVEST is not dependent on creating a new market or shifting a significant consumer behavior pattern.

HARVEST will be will be a financially sustainable “for benefit” shipping business moving a variety of agricultural goods from local farms, fresh fish and shellfish from the Belford Seafood Cooperative or Long Island Sound oyster farms, carbon neutral, and general cargos to the New York metropolitan area from ports along the Hudson River, Raritan Bay in New Jersey, and Long Island Sound.

- HARVEST will be both a for-profit and an experiential education organization whose mission is to share the experience of local maritime heritage by providing active participation in the delivery of farm produce and other essential goods by water.
- HARVEST will purpose built vessels to move goods from port to port
- HARVEST will be fashioned to provide an alternative, less carbon intensive produce and general cargo service based on a business philosophy that takes into account a triple bottom line – economic, social, and environmental benefits.

- HARVEST will market its services to farmers, fishing cooperatives, and general cargo brokers, and logistics companies as a lower emission/carbon neutral alternative to shipping by truck or rail within the Hudson Valley, northern New Jersey, and western Long Island Sound.

The key advantage that a water-centric maritime distribution system has today over the historic vessels of a century ago is that internet communication can be utilized to virtually represent food producers to convey the type and quality of goods offered before the boats arrive at the dock.

- Goods are either sold by the ship's crew or by the food producers themselves who pay a fee to participate as they would in land based farmers markets. However, the value-added attraction of a water-side venue coupled with appeal of historic maritime flavor will deliver much more than just the typical market experience.
- A CSA type program will be offered in many of the communities HARVEST plans to serve. CSA Members will be able to pick up seasonal farm fresh produce each week at the dock. Non-members will be able to purchase items off the boats as well. However, CSA members will have the advantage of selecting goods before the market opens and ability to request specific items for future deliveries.
- Our goal is to eventually service ten different ports on the Hudson River and the Harbor with at least three primary HARVEST vessels working weekly routes. Each boat will be staffed with a captain and deckhand plus part time interns and volunteers. These primary HARVEST vessels will have cargo hold refrigeration capability to keep food fresh as the vessel progresses along its weekly route. The vessels will be loading and off-loading cargo at different ports and, in some cases, assembling CSA member allotments along the way. There will be many opportunities for youth program participants, interns and volunteers to learn first-hand about maritime operations from managing cargo manifests to experiencing navigation on The Hudson and the Harbor.
- We envision that the primary HARVEST vessels will typically spend a day in each port on their route in order to transact sales, load cargo, give tours, host entertainment, share stories, and conduct food demonstrations that help patrons learn about local sustainable agriculture.
- Other vessels of varying sizes and types along with their produce and craft vendors will be invited to join the primary farm product delivery vessels at HARVEST Market Events where space is available.
- One of HARVEST's purposes is to coordinate, schedule and promote the floating market concept and expose visitors to the traditional working maritime heritage of the Hudson and the Harbor.

Partnerships and Collaboration

In order to provide integrated services HARVEST will form strategic partnerships with the U.S. Merchant Marine Academy's Alternative Power Project,⁴ NRDC, The Urban Assembly New York Harbor School,⁵ South Street Seaport Museum,⁶ The National Maritime Historical Society,⁷ tug and barge companies, Grow NYC,⁸ Lower Hudson-Long Island Resource Conservation & Development Council,⁹ Departments of Agriculture in NY and NJ, private and non-profit entities with waterfront access (Amsterdam Market, South Street Seaport Museum/Lower East Side Ecology Center/The River Project), farmers, fishermen, artist/craftsmen, and restaurants and retailers with a green agenda.



⁴ A new initiative at the USMMA, the Alternate Power Program (APP), focuses on research and training in viable alternate energy technologies - solar, wind and hydrogen power. Engineering Department faculty and students work together in trials and testing in this vital area. More details are available at: <http://www.app.usmma.edu/>

⁵ <http://newyorkharborschool.org/>

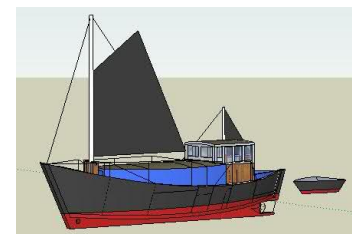
⁶ <http://www.seany.org/>

⁷ <http://www.seahistory.org/html/mission.htm>

⁸ <http://www.grownyc.org/>

⁹ <http://www.lhircd.org/>

Environmental and Community Benefits of HARVEST™

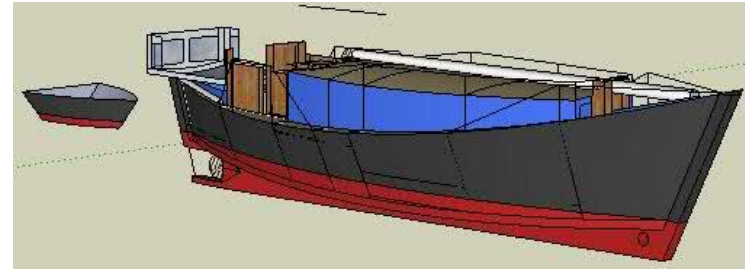
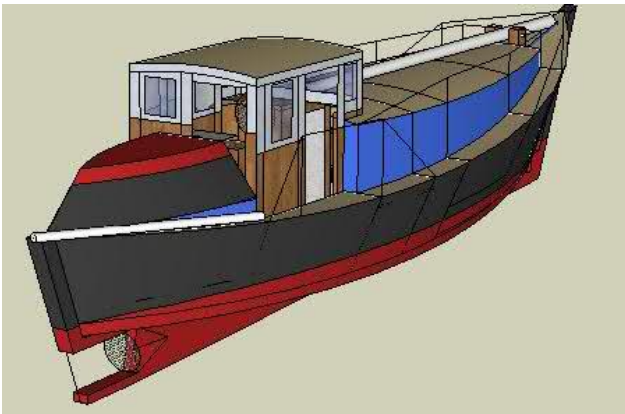
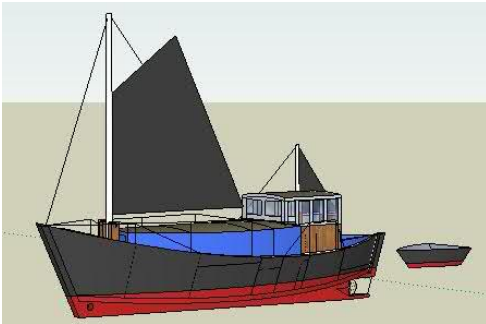


- Produce is grown/sold/delivered with minimal use of fossil fuel consumptions, low carbon footprint, reduces waste as on site composting recycles vegetable, fruit, coffee, and fish scraps from the farm and the community.
- HARVEST will be an important link in providing access to fresh produce for local communities living in “food deserts.”
- HARVEST will offer educational and cultural opportunities and provide a venue for cooking demonstrations, readings, and lectures from visiting experts.
- Local schools would not just be invited to observe but will be true partners through classes, workshops, training, and employment opportunities for students and graduates.
- As HARVEST expands to include more buildings in more communities it has the potential to create a significant amount of living wage green collar jobs.

HARVEST™ Prototype

Although HARVEST can start with any available and usable vessel as a pilot, the goal is to “standardize” the vessels so that they are replicable, can be built in small ship yards (or by home builders to HARVEST’s plans), can be operated and maintained by a small crew, will be a “local” type, and will be seaworthy and inexpensive. The combination of either 50% sail and 50% biodiesel or methane fueled marine engines, or hybrid electric power will make this design a carbon neutral “sea pickup.” The following are sketches of one version of the HARVEST prototype.

Motor Sailing Sharpie



Particulars:

Length Over All: 45'6"

Length @ Waterline: 40'10"

Beam Over All: 10'10"

Beam @ Waterline: 8'5"

Draft: 3'1"

Air draft, house up: 8'5"

Air draft, house down: 6'6"

Headroom: 6'1" throughout

Construction: Ply over sawn frames or steel

Diesel Electric Hybrid Propulsion

Both the house and the mast can be lowered for transit through The Erie Canal, and on the Raritan, Hackensack, and Passaic rivers.

