



Hudson River Highway Project

Providing reliable, low-cost Hudson River transport of farm products to markets in NYC

Summary: This paper outlines the vision and strategic approach for the Hudson River Highway Project, inviting stakeholders to rethink the region's transportation system for farm products. Small to medium-sized farms in New York State are producing at limited capacities, partly because of poor access to the largest food market in the country, New York City. Increasing costs of truck transportation during and since the Covid epidemic, including the costs of leasing, maintenance, and labor has taken its toll on farms in our state and surrounding areas. By lowering our regional growers' transportation costs, we can help farms to expand and encourage new starts to thrive. In addition, land prices in the upper valley regions are lower than in downstate areas. This is an advantage for farmers who wish to expand production and for young farmers wanting to begin a new farm enterprise.

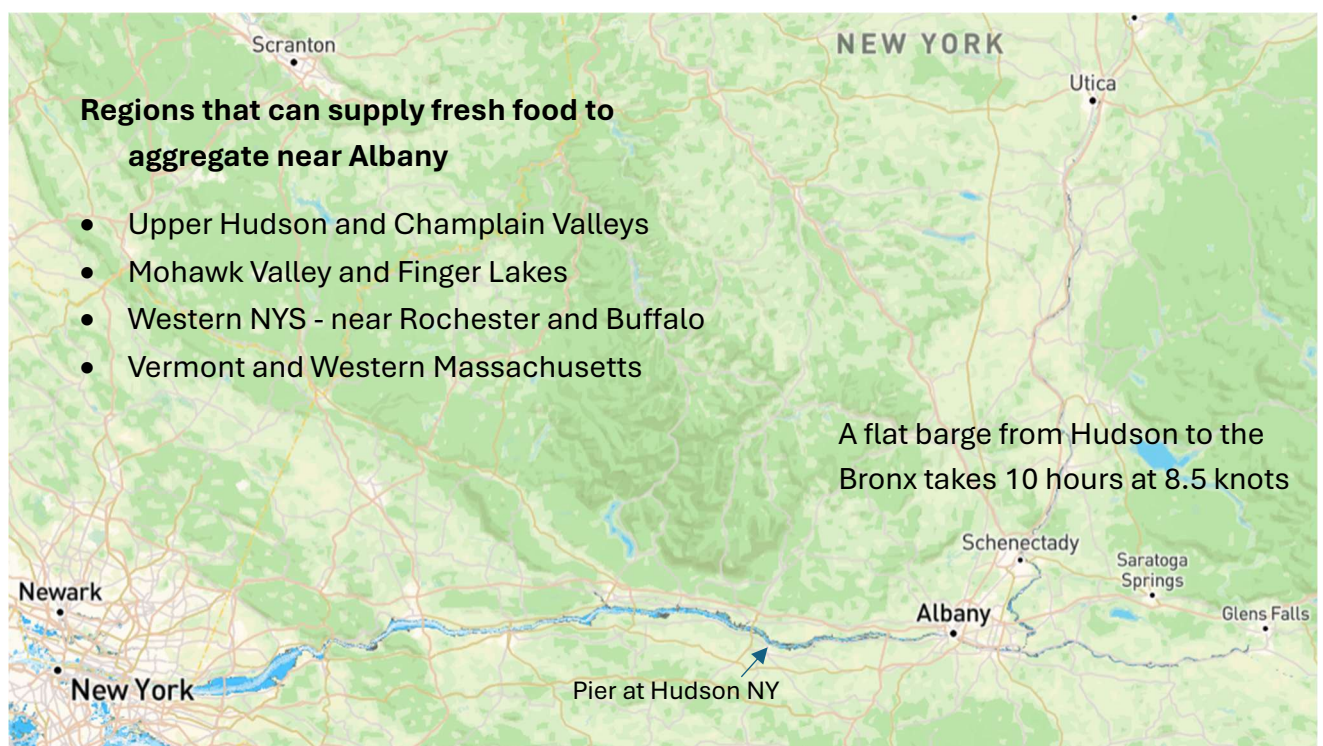
Establishing a reliable, cost-effective logistic system that includes Hudson River marine transport to boroughs of New York City is the aim of the Hudson River Highway Project. The riverfront around Albany is an ideal location to aggregate fresh farm food headed to piers in Brooklyn, Queens, Manhattan, and the Bronx. Our vision of the final system design anticipates using purpose built electric-drive cargo vessels, each with a capacity to haul tons of fresh food each week. Demonstrating this logistics model is currently in the planning stages. A pilot program will employ currently available ferry or Tug & Barge transport for Proof of Concept, leading to optimization of the transport processes. Our waterborne service on the Hudson will be a double "win" for New York State and surrounding areas, supporting agriculture and expanding access to fresh, healthy food for NYC residents.

The Problem: According to the NYS Council on Hunger and Food Policy 2024 annual report, *"...from 2012 to 2022, hired (farm) labor expenditures grew by 68 percent, far surpassing other categories. Despite economic growth between 2012 and 2022, the state lost close to 14 percent of its farms and over nine percent of farmland. New York is losing farms and land faster than nationwide averages."* Further challenging our regional farms are the major distributors who truck massive quantities of food cross-country from growers in Mexico, the west coast, and Midwestern states. Drought, animal disease epidemics, long-distance transportation, and farm labor issues are current food chain problems that impact the resilience and reliability of supplies to NYC.

During the Covid epidemic, there was a noticeable decrease in available food shipments from growers in other states. Large midwestern meat processing plants shut down, causing unacceptable levels of food insecurity and general shortages in many city neighborhoods. Some nonprofits like The Skyline Charitable Foundation sent their own trucks to farms north of the city to gather fresh farm food, delivering to community-based organizations in the Bronx. Many regional farms have found trucking their products to be increasingly costly. Our Hudson River Highway Project focuses on implementing achievable, near-term solutions over the next 3-5 years.

The Solution: Marine transport on the Hudson River from an aggregation point near Albany to NYC borough piers

1. Reliable scheduling: As the program demonstrates a consistent weekly drop-off schedule, farmer confidence will encourage additional participation in this streamlined logistics system. Economic scaling to meet growing supply and demand will result in financially sustainable operations.
2. Backhaul: Truck drivers hauling refrigerated trailers from as far as Buffalo to a pier at Hudson, NY will return with backhaul headed to northern, central, and western parts of the state.
3. Last-mile city distribution: Using pier warehouses and local roads in each borough will relieve congestion on bridges, tunnels, and major city arteries. We expect this regional food supply to grow each year, adding to the resiliency of vital food supplies.



Promoting economic growth and job creation

By increasing fresh food flowing from our regional farms to NYC, we expect growth to be evident in several job sectors. These include: expansion of existing farm capacity and new farm starts; river vessel design, repair, and construction; vessel operation and maintenance; logistics systems management; pier side loading and unloading; and last mile cargo bike distribution.

Challenges and Mitigation Strategies

Freshness of Food Off the Farm: For NYC residents, product freshness and nutritional value are key benefits to purchasing from our regional farmers. It is a clear advantage over old frozen food trucked for days from warehouses on the west coast and the Midwest. Our Hudson River logistics system is designed to maintain the freshness of vegetables, fruit,

beef, pork, lamb, goat, poultry, dairy, eggs, wine, craft beer, and maple syrup, as well as nonperishable grains and staples. Using refrigerated trailers from the farm to final unloading at the customer site ensures fresh and safe food transport.

Alternative Winter Transport: Vegetable and fruit products are mostly seasonal, but grains, dairy, meat, poultry, fish, eggs, craft beer, and wine are examples of products that continue to flow from our region during winter months. Hudson, NY provides a wider segment of the river, limiting the impact of winter ice on our pickup and delivery schedules.

Initial Investment: Initial capital will be through grants and public-private partnerships. It is also possible that initial subsidies can mitigate the farmer's cost to begin using the service.

Developing a pilot program for Proof of Concept

A pilot program with one growing season's products and using existing waterborne transport will demonstrate Proof of Concept (POC). This would include two elements:

1. **Farm participation** – Working with Headwater Food Hub, Ontario, NY, Oneida County Cornell Cooperative Extension, and other regional farm organizations, helps us to link regional food producers with city food purchasing agents. This will streamline the food sourcing process and distribution occurring in each borough.
2. **Proof of Concept** – *6th Boro Marine* is working with us to plan a test run from a northern river hub to piers in the Bronx and Brooklyn. During each test run of farm products, we will collect data, such as cargo types and quantities, loading and unloading times, river conditions, energy usage, best city pier landing sites, scheduling variations, and other real-time delivery issues. We can also test backhauling products from NYC to upriver ports and beyond, using data analysis to finalize a sustainable river transport system.

Conclusion

The Hudson River Highway Project represents an achievable solution to the transportation challenges faced by farmers in our region. As electric drive technology and infrastructure improve, this project aims to create a sustainable, efficient, and resilient transportation network from farm to neighborhood outlet. River transport will guarantee the continuous and growing flow of regional farm products to New York City, while significantly reducing the environmental impact of our current transport system.

To realize these clear advantages, we seek collaboration with regional farmers, farm organizations, river freight operators, shipyard building and repair facilities, technology partners, state and local agencies, universities, and private foundations. Together, we can use technological innovation to drive economic growth, environmental sustainability, and food security. Our initiative will serve as an example to similar regions in the country that have farms near navigable river frontage.