MARITIME ADMINISTRATION

BENEFITS OF BARGE TRANSPORT: CAPACITY, SAFETY, INCENTIVES & CLEAN AIR!

Office of Ports & Waterways Planning
The Need for Domestic Marine Transportation

- Surges in international cargo concentrated at fewer ports
- High cost of increased landside congestion
- Truck driver shortages and regulations
- Disruptive events effects on landside infrastructure
- Improved environmental sustainability

Source: Bureau of Transportation Statistics Seasonally Adjusted Transportation Data, https://www.transtats.bts.gov/osa/seasonaladjustment/

Notes: “Truck” and “Water” are tonnage indices. “Rail” is the sum of carloads and intermodal units as reported to BTS by the Association of American Railroads (AAR).
What are Marine Highways?

- Logistic solution to a logistical problem
- Another supply chain alternative
- Require relatively little maintenance or repair
- Provides environmental and economic benefits to the public
- Touches 38 out of 50 states, as well as the District of Columbia and all U.S. Territories
Why Marine Highways

EQUIVALENT UNITS

ONE BARGE

16 RAIL CARS

ONE 15-BARGE TOW AND TOW BOAT

6 LOCOMOTIVES & 216 RAIL CARS

70 LARGE SEMIS/TRACTOR TRAILERS

1,050 LARGE SEMIS/TRACTOR TRAILERS
Environmentally Friendly

Barges have the smallest carbon footprint among other transportation modes.

Moving an identical amount of cargo by barge:

- Rail generates 30\% more carbon dioxide
- Truck 1,000\% carbon dioxide

Tons of Co2 per Million Ton-miles

- 16.41 M
- 21.35 M
- 171.83 M
America’s Marine Highway (AMH) Program

The Marine Highway System consists of most U.S. navigable waterways including our coastlines, inland waterways, and the Great Lakes St. Lawrence Seaway System.

• The Marine Highway Program has three steps –

  – **Route Designation**: A commercially navigable waterway in the U.S. and territories that is capable of moving freight.

  – **Project Designation**: New or expanded marine highway service

  – **Federal Support**: Marine Highway Grant funding
Step 1 **Route Designation**

27 AMH Routes
Step 2 Project Designation
Eligible applicants (Public Entities) include:

- State governments or State DOT
- Metropolitan or Regional Planning Organization (MPO)
- Local governments, Port Authorities, Tribal governments

Public/private partnerships are encouraged

Purpose of the Project Designation:

- Create a new or expand an existing service
- Realize public benefits (e.g. reduced congestion, reduced road maintenance)
- Ensure regular scheduled and reliable service
- Receive recognition from the USDOT Secretary

Application must describe the freight transportation service
Step 2 Project Designation

Eligible Freight

- U.S. documented vessels that transport cargo:
  - Contained in intermodal containers and loaded by crane on the vessel
  - Loaded on the vessel by means of wheeled technology
  - Shipped in discrete units or packages that are handled individually, palletized, or unitized
  - In freight vehicles carried aboard commuter ferry boats
**Project Designation**

Why Project Designation?

- Identify areas of opportunities
- Measure public & private benefits
- Identify & quantify infrastructure gaps
- Capital costs

---

**OPEN SEASON PROJECT DESIGNATION SUBMISSION AND REVIEW TIMELINE**

<table>
<thead>
<tr>
<th>Project application due date (11:59 p.m. Pacific)</th>
<th>Project review period</th>
</tr>
</thead>
</table>

[Marine Highway Project Designation Open Season General Information Announcement](#) - link
Port Planning & Investment Toolkit
Marine Highway Project Module

• Introduction and User’s Guide
• Marine Highway Projects
  – Provides an overview of America's Marine Highway (AMH) Program and educates readers on how marine highway services can become designated projects by USDOT
  – Maritime industry experts contributed to this module

PP&IT module is available at:
Step 3  **Federal Support**

- Credibility of concept
- U.S. Department of Transportation support
- Clearinghouse of lessons learned
- Promoting and developing partnerships
- Linking coastwise services to international services
- Eligibility for America’s Marine Highway grant funding
Federal Support – Marine Highway Grants

- Eligible applicants include:
  - Applicants of Designated Projects, or
  - Private entities with the approval of the Designated Project applicant

- What can Marine Highway Grant funds be used for?
  - The development and expansion of port and landside infrastructure
    - Typically cargo handling equipment
  - The development and expansion of documented vessels
    - Purchase, lease, or modification of vessels or barges
  - Planning, preparation and design efforts in support of marine highway projects
    - Funding cannot be used for market related studies
  - Required minimum 20% cost share

AMH Grants can be used to alleviate the upfront capital risk associated with starting new services
### Federal Support

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Details</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FY 2016</strong> – Six recipients</td>
<td>$5 Million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baton Rouge–New Orleans Shuttle on the M-55</td>
<td>$1,758,595</td>
</tr>
<tr>
<td></td>
<td>Illinois Intrastate Shuttle on the M-55</td>
<td>$ 713,000</td>
</tr>
<tr>
<td></td>
<td>James River Expansion Project on the M-64</td>
<td>$ 476,748</td>
</tr>
<tr>
<td></td>
<td>New York Harbor and Container and Trailer on Barge</td>
<td>$1,632,296</td>
</tr>
<tr>
<td></td>
<td>M-55/M-35 Container on Barge Project</td>
<td>$  96,000</td>
</tr>
<tr>
<td></td>
<td>Potomac River Commuter Ferry Project</td>
<td>$ 173,361</td>
</tr>
<tr>
<td><strong>FY 2017</strong> – Six recipients</td>
<td>$5 Million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baton Rouge–New Orleans Shuttle on the M-55</td>
<td>$2,507,200</td>
</tr>
<tr>
<td></td>
<td>Port of Davisville/Brooklyn/Newark Container on Barge Service</td>
<td>$ 855,200</td>
</tr>
<tr>
<td></td>
<td>James River Expansion Project on the M-64</td>
<td>$ 456,000</td>
</tr>
<tr>
<td></td>
<td>New York Harbor and Container and Trailer on Barge</td>
<td>$ 298,423</td>
</tr>
<tr>
<td></td>
<td>Cross Sound Enhancements</td>
<td>$ 503,927</td>
</tr>
<tr>
<td></td>
<td>Paducah-McCracken Riverport Container on Barge Service</td>
<td>$ 251,927</td>
</tr>
<tr>
<td><strong>FY 2018</strong> – Three recipients</td>
<td>$7 Million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEACOR AMH - Baton Rouge–New Orleans Shuttle on the M-55</td>
<td>$3,155,622</td>
</tr>
<tr>
<td></td>
<td>JRBL - James River Expansion Project on the M-64</td>
<td>$1,822,093</td>
</tr>
<tr>
<td></td>
<td>Harbor Harvest Long Island Sound Service</td>
<td>$ 1,812,285</td>
</tr>
<tr>
<td><strong>FY 2019</strong> – Nine recipients</td>
<td>$7.5 Million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fernandina Express Container on Barge M-95 Florida to SC</td>
<td>$1,291,800</td>
</tr>
<tr>
<td></td>
<td>McCracken Container on Barge – Paducah, KY</td>
<td>$ 480,000</td>
</tr>
<tr>
<td></td>
<td>New Orleans Shuttle of the M-55 - Baton Rouge, LA</td>
<td>$1,040,000</td>
</tr>
<tr>
<td></td>
<td>Lake Erie Shuttle – Michigan</td>
<td>$ 1,101,735</td>
</tr>
<tr>
<td></td>
<td>M-84 Barge Service Expansion - Port of Morrow, Oregon</td>
<td>$1,623,200</td>
</tr>
<tr>
<td></td>
<td>Gateway and Gulf Container on Barge Central Node – Houston, TX</td>
<td>$ 180,000</td>
</tr>
<tr>
<td></td>
<td>James River Expansion Project M-64 - Port of Virginia</td>
<td>$ 189,840</td>
</tr>
<tr>
<td></td>
<td>M-95 Intermodal Barge Service - Wallops Island, Virginia</td>
<td>$  96,425</td>
</tr>
<tr>
<td></td>
<td>Bainbridge Island Ferry Service – Seattle, WA</td>
<td>$ 1,500,000</td>
</tr>
<tr>
<td><strong>FY 2020</strong> – Eight recipients</td>
<td>$9.775 Million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Port Landside Infrastructure Improvements - Pago Pago, American Samoa</td>
<td>$ 943,000</td>
</tr>
<tr>
<td></td>
<td>America’s Central Port Container Handling &amp; Securing Project – Granite City, Illinois</td>
<td>$1,268,000</td>
</tr>
<tr>
<td></td>
<td>Tidewater M-84 Expansion Project – Morrow, Oregon</td>
<td>$2,363,800</td>
</tr>
<tr>
<td></td>
<td>Nucor Steel Brandenburg Marine Terminal – Brandenburg, Kentucky</td>
<td>$ 545,136</td>
</tr>
<tr>
<td></td>
<td>Jeffersonville Nucor Barge Shuttle Storage Facility - Indiana</td>
<td>$ 778,350</td>
</tr>
<tr>
<td></td>
<td>Capacity &amp; Efficiency Container Barge Service – SEACOR AMH</td>
<td>$ 148,664</td>
</tr>
<tr>
<td></td>
<td>NY Harbor Container &amp; Barge Cargo Handling Efficiency – M-95</td>
<td>$ 308,000</td>
</tr>
<tr>
<td></td>
<td>USCS Kearny Point - Newtown Creek Barge Service M-95, New York, NY</td>
<td></td>
</tr>
</tbody>
</table>

Since 2016, MARAD has provided $33.8 million in AMH Grants to 18 eligible AMH Projects.
Step 3 Federal Support

- **Texas - Houston Gateway and Gulf Container on Barge Central Node**
  Operational Plan Development for a business case to support shipping container movements

- **Michigan - Lake Erie Shuttle**
  Purchase and installation of a crawler crane and train operators

- **New York Harbor and Container and Trailer on Barge Service**
  Infrastructure to improve barge operations and the creation of a crane operator training center to boost safety and container throughput

- **M-70 Barge Service - Ports of Cincinnati, Northern Kentucky and Beyond**
  Ohio-Kentucky-Indiana Regional Council of Governments sponsored Nucor Steel Corp for a grant to retrofit two casino barges to move containers along the M-70 route
Benefits of AMH Funding

Containers shifted from landside transportation

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEUs</td>
<td>39,204</td>
<td>47,988</td>
<td>101,362</td>
<td>140,570</td>
<td>162,492</td>
</tr>
</tbody>
</table>

Total Maintenance/ Congestion Savings

- 2016: $16,483,844
- 2017: $13,464,550

Truck Miles Avoided

- 2016: 162,492 Truck Miles
- 2017: 140,570 Truck Miles
- 2018: 101,362 Truck Miles
- 2019: 39,204 Truck Miles
- 2020: 47,988 Truck Miles

Total: $16,483,844

CONTAINER (TEUs)
The Port of Richmond, VA

2010
- Virginia Port Authority (VPA) received a $1.1M Grant for a container barge for a one-day/week service.

2016 – 2018
- Richmond Regional Transportation Planning Organization (MPO) secured area near the port for intermodal services
- VPA received grants
  - Top loader
  - 26K lb forklift
  - Barge Generator to handle unitized and refrigerated cargo
- VPA sponsored James River Barge Lines, private operator, for a $1.8M grant for a purpose built barge to start a daily service

Success Stories

- 1,100 Jobs
- $436 M Private Investment
- 4.5 M SQFT Developed
- $4M Grants

Virginia Port Authority (VPA) received a $1.1M Grant for a container barge for a one-day/week service.

Richmond Regional Transportation Planning Organization (MPO) secured area near the port for intermodal services

VPA received grants
- Top loader
- 26K lb forklift
- Barge Generator to handle unitized and refrigerated cargo

VPA sponsored James River Barge Lines, private operator, for a $1.8M grant for a purpose built barge to start a daily service
Another Success Story

Memphis – Baton Rouge – New Orleans Marine Highway Project

Reposition empty containers from Memphis to Baton Rouge for loading export plastic resins from local shippers

Grants to Ports

- Barges for a new service
- Material Handling equipment

Grants to SEACOR AMH

- Port of New Orleans sponsored purpose-built vessels, permanent dunnage fabrication and installation in barges
- Port of Greater Baton Rouge sponsored six purpose-built barges and leased one towboat

![TEUs Carried Chart]

![VMT Avoided Chart]
Marine Highway Program Staff

Director, Office of Ports & Waterways Planning

Vince Mantero
America’s Marine Highway Program

Timothy Pickering
Operations Development Manager
timothy.pickering@dot.gov

Mauricio Castro
Transportation Specialist
mauricio.castro@dot.gov

Tori Collins
Transportation Assistant
tori.collins@dot.gov

Fred Jones
Transportation Specialist
fred.jones@dot.gov
Portion of the Columbia-Snake River, inland from Bonneville Dam, is aligned with the Inland Waterway Gateway Region.

MARITIME ADMINISTRATION GATEWAY OFFICES

Bruce Lambert
Branden Villalona
Chad Dorsey
Brian Hill
Jim Murphy
Mike Sullivan
Jeff Flumignan
Amanda Rutherford
Fran Bohnsack

U.S. Virgin Islands
Puerto Rico
GATEWAY OFFICES DIRECTORY

NORTH ATLANTIC GATEWAY (New York, NY)
Jeffrey Flumignan, Director
Jeffrey.flumignan@dot.gov

MID ATLANTIC GATEWAY (Washington, DC)
Amanda Rutherford, Director
Amanda.rutherford@dot.gov

SOUTH ATLANTIC GATEWAY (Miami, FL)
Frances Bohnsack, Director
Frances.Bohnsack@dot.gov

GREAT LAKES GATEWAY (Chicago, IL)
Robert "Mike" Sullivan, Director
Robert.m.sullivan@dot.gov

INLAND WATERWAYS GATEWAY (St. Louis, MO)
Branden Villalona, Director
Branden.Villalona@dot.gov

INLAND WATERWAYS GATEWAY (Paducah, KY)
Chad Dorsey, Director
Chad.dorsey@dot.gov

WESTERN GULF GATEWAY (Houston, TX)
Brian Hill, Director
Brian.P.Hill@dot.gov

PACIFIC NORTHWEST/ ALASKA/ GATEWAY (Seattle, WA)
Bruce Lambert, Director
Bruce.lambert@dot.gov

MID PACIFIC / GUAM / HAWAII GATEWAY (Los Angeles, CA)
Bruce Lambert and Brian Hill, Interim Directors

https://www.maritime.dot.gov/about-us/gateway-offices/gateway-offices
Thank you

Office of Ports & Waterways Planning
Maritime Administration
1200 New Jersey, Ave, SE
Washington, DC 20590
202-366-5527
MH@dot.gov
www.marad.dot.gov