

# EXAMINING THE ROLE OF FERRIES IN IMPROVING MOBILITY

---

---

(117-26)

## REMOTE HEARING

BEFORE THE  
SUBCOMMITTEE ON  
HIGHWAYS AND TRANSIT  
OF THE  
COMMITTEE ON  
TRANSPORTATION AND  
INFRASTRUCTURE  
HOUSE OF REPRESENTATIVES  
ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

SEPTEMBER 28, 2021

Printed for the use of the  
Committee on Transportation and Infrastructure



Available online at: [https://www.govinfo.gov/committee/house-transportation?path=/  
browsecommittee/chamber/house/committee/transportation](https://www.govinfo.gov/committee/house-transportation?path=/browsecommittee/chamber/house/committee/transportation)

U.S. GOVERNMENT PUBLISHING OFFICE

46-518 PDF

WASHINGTON : 2022

PETER A. DEFAZIO, Oregon, *Chair*

ELEANOR HOLMES NORTON,  
District of Columbia  
EDDIE BERNICE JOHNSON, Texas  
RICK LARSEN, Washington  
GRACE F. NAPOLITANO, California  
STEVE COHEN, Tennessee  
ALBIO SIRES, New Jersey  
JOHN GARAMENDI, California  
HENRY C. "HANK" JOHNSON, JR., Georgia  
ANDRE CARSON, Indiana  
DINA TITUS, Nevada  
SEAN PATRICK MALONEY, New York  
JARED HUFFMAN, California  
JULIA BROWNLEY, California  
FREDERICA S. WILSON, Florida  
DONALD M. PAYNE, JR., New Jersey  
ALAN S. LOWENTHAL, California  
MARK DeSAULNIER, California  
STEPHEN F. LYNCH, Massachusetts  
SALUD O. CARBAJAL, California  
ANTHONY G. BROWN, Maryland  
TOM MALINOWSKI, New Jersey  
GREG STANTON, Arizona  
COLIN Z. ALLRED, Texas  
SHARICE DAVIDS, Kansas, *Vice Chair*  
JESÚS G. "CHUY" GARCÍA, Illinois  
ANTONIO DELGADO, New York  
CHRIS PAPPAS, New Hampshire  
CONOR LAMB, Pennsylvania  
SETH MOULTON, Massachusetts  
JAKE AUCHINCLOSS, Massachusetts  
CAROLYN BOURDEAUX, Georgia  
KAIALI'I KAHELE, Hawaii  
MARILYN STRICKLAND, Washington  
NIKEMA WILLIAMS, Georgia  
MARIE NEWMAN, Illinois  
TROY A. CARTER, Louisiana  
SAM GRAVES, Missouri  
DON YOUNG, Alaska  
ERIC A. "RICK" CRAWFORD, Arkansas  
BOB GIBBS, Ohio  
DANIEL WEBSTER, Florida  
THOMAS MASSIE, Kentucky  
SCOTT PERRY, Pennsylvania  
RODNEY DAVIS, Illinois  
JOHN KATKO, New York  
BRIAN BABIN, Texas  
GARRET GRAVES, Louisiana  
DAVID ROUZER, North Carolina  
MIKE BOST, Illinois  
RANDY K. WEBER, SR., Texas  
DOUG LAMALFA, California  
BRUCE WESTERMAN, Arkansas  
BRIAN J. MAST, Florida  
MIKE GALLAGHER, Wisconsin  
BRIAN K. FITZPATRICK, Pennsylvania  
JENNIFFER GONZALEZ-COLON,  
Puerto Rico  
TROY BALDERSON, Ohio  
PETE STAUBER, Minnesota  
TIM BURCHETT, Tennessee  
DUSTY JOHNSON, South Dakota  
JEFFERSON VAN DREW, New Jersey  
MICHAEL GUEST, Mississippi  
TROY E. NEHLS, Texas  
NANCY MACE, South Carolina  
NICOLE MALLIOTAKIS, New York  
BETH VAN DUYN, Texas  
CARLOS A. GIMENEZ, Florida  
MICHELLE STEEL, California

SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

ELEANOR HOLMES NORTON, District of Columbia, *Chair*

EDDIE BERNICE JOHNSON, Texas  
ALBIO SIRES, New Jersey  
JOHN GARAMENDI, California  
HENRY C. "HANK" JOHNSON, JR., Georgia  
SEAN PATRICK MALONEY, New York  
JULIA BROWNLEY, California  
FREDERICA S. WILSON, Florida  
ALAN S. LOWENTHAL, California  
MARK DeSAULNIER, California  
STEPHEN F. LYNCH, Massachusetts  
ANTHONY G. BROWN, Maryland  
GREG STANTON, Arizona, *Vice Chair*  
COLIN Z. ALLRED, Texas  
JESÚS G. "CHUY" GARCÍA, Illinois  
ANTONIO DELGADO, New York  
CHRIS PAPPAS, New Hampshire  
CONOR LAMB, Pennsylvania  
JAKE AUCHINCLOSS, Massachusetts  
CAROLYN BOURDEAUX, Georgia  
MARILYN STRICKLAND, Washington  
GRACE F. NAPOLITANO, California  
JARED HUFFMAN, California  
SALUD O. CARBAJAL, California  
SHARICE DAVIDS, Kansas  
SETH MOULTON, Massachusetts  
KAIALI KAHELE, Hawaii  
NIKEMA WILLIAMS, Georgia  
MARIE NEWMAN, Illinois  
STEVE COHEN, Tennessee  
PETER A. DeFAZIO, Oregon (*Ex Officio*)

RODNEY DAVIS, Illinois  
DON YOUNG, Alaska  
ERIC A. "RICK" CRAWFORD, Arkansas  
BOB GIBBS, Ohio  
THOMAS MASSIE, Kentucky  
SCOTT PERRY, Pennsylvania  
JOHN KATKO, New York  
BRIAN BABIN, Texas  
DAVID ROUZER, North Carolina  
MIKE BOST, Illinois  
DOUG LAMALFA, California  
BRUCE WESTERMAN, Arkansas  
MIKE GALLAGHER, Wisconsin  
BRIAN K. FITZPATRICK, Pennsylvania  
JENNIFFER GONZÁLEZ-COLÓN,  
Puerto Rico  
TROY BALDERSON, Ohio  
PETE STAUBER, Minnesota  
TIM BURCHETT, Tennessee  
DUSTY JOHNSON, South Dakota  
MICHAEL GUEST, Mississippi  
TROY E. NEHLS, Texas  
NANCY MACE, South Carolina  
NICOLE MALLIOTAKIS, New York  
BETH VAN DUYNE, Texas  
CARLOS A. GIMENEZ, Florida  
MICHELLE STEEL, California  
SAM GRAVES, Missouri (*Ex Officio*)



## CONTENTS

	Page
Summary of Subject Matter .....	vii
STATEMENTS OF MEMBERS OF THE COMMITTEE	
Hon. Eleanor Holmes Norton, a Delegate in Congress from the District of Columbia, and Chair, Subcommittee on Highways and Transit, opening statement .....	1
Prepared statement .....	2
Hon. Rodney Davis, a Representative in Congress from the State of Illinois, and Ranking Member, Subcommittee on Highways and Transit, opening statement .....	3
Prepared statement .....	5
Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure, prepared statement .....	53
Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure, prepared statement .....	54
Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas, prepared statement .....	54
WITNESSES	
Patty Rubstello, P.E., Assistant Secretary, Washington State Department of Transportation, Ferries Division, oral statement .....	6
Prepared statement .....	8
Seamus Murphy, Executive Director, San Francisco Bay Area Water Emergency Transportation Authority (WETA), oral statement .....	13
Prepared statement .....	15
Hon. Frank J. Principi, Chairman, M-495 Fast Ferry Stakeholder Group, Northern Virginia Regional Commission, oral statement .....	18
Prepared statement .....	20
Kyle Godar, County Engineer, Calhoun County, Illinois, oral statement .....	21
Prepared statement .....	23
SUBMISSIONS FOR THE RECORD	
Letter of April 21, 2021, from Hon. Rodney Davis, a Representative in Congress from the State of Illinois, to Stephanie Pollack, Acting Administrator, Federal Highway Administration and Vance F. Stewart III, Acting Assistant Secretary of the Army (Civil Works), Army Corps of Engineers (Civil Works), Submitted for the Record by Hon. Rodney Davis .....	4
APPENDIX	
Questions to Patty Rubstello, P.E., Assistant Secretary, Washington State Department of Transportation, Ferries Division, from:	
Hon. Jenniffer González-Colón .....	55
Hon. Stephen F. Lynch .....	57
Hon. Eddie Bernice Johnson .....	57
Questions to Seamus Murphy, Executive Director, San Francisco Bay Area Water Emergency Transportation Authority (WETA), from:	
Hon. Rodney Davis .....	58
Hon. Jenniffer González-Colón .....	58
Hon. Stephen F. Lynch .....	59
Hon. Eddie Bernice Johnson .....	60

	Page
Questions to Hon. Frank J. Principi, Chairman, M-495 Fast Ferry Stakeholder Group, Northern Virginia Regional Commission, from:	
Hon. Jenniffer González-Colón .....	60
Hon. Stephen F. Lynch .....	61
Hon. Eddie Bernice Johnson .....	61
Questions to Kyle Godar, County Engineer, Calhoun County, Illinois, from:	
Hon. Jenniffer González-Colón .....	62
Hon. Stephen F. Lynch .....	63
Hon. Eddie Bernice Johnson .....	63



Committee on Transportation and Infrastructure  
U.S. House of Representatives  
Washington, DC 20515

Peter A. DeFazio  
Chairman

Katherine W. Dedrick, Staff Director

Sam Graves  
Ranking Member

Paul J. Sass, Republican Staff Director

SEPTEMBER 28, 2021

**SUMMARY OF SUBJECT MATTER**

TO: Members, Subcommittee on Highways and Transit  
FROM: Staff, Subcommittee on Highways and Transit  
RE: Subcommittee Hearing on “Examining the Role of Ferries in Improving Mobility”

**PURPOSE**

The Subcommittee on Highways and Transit will meet on Tuesday, September 28, 2021, at 10:00 a.m. EDT in 2167 Rayburn House Office Building and virtually via Zoom to receive testimony related to the hearing entitled “Examining the Role of Ferries in Improving Mobility.” The purpose of this hearing is to examine the role of ferry transportation in reducing congestion and contributing to clean mobility alternatives, and to examine the federal programs that support this mode of transportation. The subcommittee will hear from representatives of the Washington State Department of Transportation, M-495 Regional Commuter Ferry Group, San Francisco Bay Area Water Emergency Transportation Authority (WETA), and the Calhoun County, Illinois Engineering Department.

**BACKGROUND**

*FEDERAL INVESTMENT IN FERRIES*

*Federal Highway Administration (FHWA)*

Under current law, the Highways and Transit Subcommittee authorizes two programs that provide federal funds to support ferry transportation. The Ferry Boat Discretionary (FBD) Program is a formula-based program for the construction of ferry boat and ferry terminal facilities administered by FHWA. The program, created under the Intermodal Surface Transportation Efficiency Act of 1991, was most recently reauthorized in 2015 in the Fixing America’s Surface Transportation (FAST) Act (P.L. 114–94) which provided \$80 million per year over five years in contract authority from the Highway Trust Fund (HTF), and was continued in the Continuing Appropriations Act, 2021 and Other Extensions Act (P.L. 116–159). In fiscal year (FY) 2020, the program provided funds to more than 100 public recipients in 37 states and territories.<sup>1</sup>

In July 2021, the House passed the Investing in a New Vision for the Environment and Surface Transportation (INVEST) in America Act (H.R. 3684), which reauthorized the FBD program and provided increased funding of \$600 million over five years (\$120 million per year) in contract authority. In August 2021, the Senate passed the Infrastructure Investment and Jobs Act (IIJA; Senate amendment to H.R. 3684), which included \$912 million over five years in total guaranteed funding. Of that total, \$570 million is contract authority from the HTF and \$342 million is guaranteed additional spending over the next five years. The \$570 million is provided as follows:

- FY22: \$178,400,000
- FY23: \$180,400,000
- FY24: \$182,400,000
- FY25: \$184,400,000
- FY26: \$186,400,000

<sup>1</sup> <https://www.fhwa.dot.gov/specialfunding/fbp/200820.cfm>

*Federal Transit Administration (FTA)*

Administered by the Federal Transit Administration (FTA), the Passenger Ferry Grant program (49 U.S.C. 5307(h)) provides grants on a competitive basis to improve the condition of public ferry systems in urbanized areas. The program was authorized at \$30 million annually in the Fixing America's Surface Transportation (FAST) Act (P.L. 114–94) and was continued at \$30 million in FY 2021 under the Continuing Appropriations Act, 2021 and Other Extensions Act (P.L. 116–159). Funds are provided as a takedown from the Urbanized Area Formula Grant program. In FY 2020, FTA awarded grants under this program to public transportation entities in 12 states.<sup>2</sup>

The House-passed INVEST in America Act provided \$245 million for FY23 through FY26 for passenger ferries and would authorize the Secretary to make grants for zero- or reduced-emission passenger ferries. The IIJA does not include an increase in funding for this account.

*Other Proposed Programs*

The IIJA included \$1.25 billion in additional guaranteed general fund funding for ferry programs. Of the total, \$1.0 billion is for a Ferry Service in Rural Areas program, and \$250 million is for an Electric or Low-Emitting Ferry Pilot program to support alternative fuel ferry service.

*FERRY RIDERSHIP*

Ferries operate in diverse areas of the United States, including in some of the nation's most congested urban areas—such as New York City and San Francisco—to provide an alternative to crowded roadways and transit lines.<sup>3</sup> Likewise, coastal regions—including along the coast of Washington State and Alaska—rely on ferries for connectivity between island and mainland communities. Federal funds also support ferry service in a wide range of non-coastal, predominantly rural states, including Kentucky, Montana, Oklahoma, Tennessee, and Utah.

Ferry data is collected under a national ferry database overseen by the Department of Transportation's Bureau of Transportation Statistics (BTS). Conducted biennially, the National Census of Ferry Operators (NCFO) is a survey of all ferry operations in the United States and territories, and includes information on operators, route segments, terminals, and vessel data.

Due to the impact on ridership from the COVID–19 pandemic, the collection of data for the 2022 NCFO has been postponed and will begin on April 1, 2023.<sup>4</sup> According to the most recently available data from the 2020 NCFO, a survey of 246 ferry operators found that in 2019, 131.6 million passengers were carried on ferries in the United States and territories. Data from the census showed that 66.7 percent of operators reported that commuter transit was one of the purposes of their trip, with pleasure/recreation coming in second at 58.6 percent.<sup>5</sup> Census data further showed that 22.4 percent of operators reported emergency services as one of the purposes of the trip.<sup>6</sup>

<sup>2</sup> <https://www.transit.dot.gov/grants/grant-programs/passenger-ferry-grant-program-2020-selected-projects>

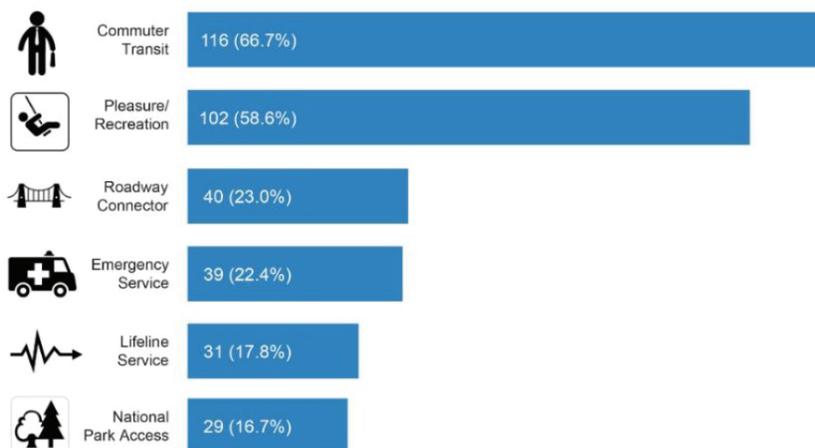
<sup>3</sup> <https://www.apta.com/wp-content/uploads/APTA-2021-Fact-Book.pdf>

<sup>4</sup> <https://www.bts.gov/NCFO>

<sup>5</sup> <https://content.govdelivery.com/accounts/USDOT/bulletins/2ea3186>

<sup>6</sup> <https://www.bts.gov/NCFO>

## Ferry Trips by Purpose: 2019



Note: Operators may choose multiple responses so percentages do not add up to 100%.  
Source: 2020 National Census of Ferry Operators

## CONGESTION AND EMISSIONS IMPACTS

Our nation's ferry systems quickly and efficiently transport millions of passengers, which reduces congestion and wear and tear on our nation's roads. Ferry service provides a transportation alternative to congested roadways in some of America's largest urbanized areas. Although ferries represent a small percentage of the total transit ridership, according to data from the American Public Transportation Association, the New York City Department of Transportation saw ferryboat ridership grow by nearly 3 percent to 25,222 unlinked passenger trips in 2019, totaling 131,154.3 passenger miles travelled.<sup>7</sup>

The COVID-19 pandemic resulted in a significant reduction in traffic congestion and transit ridership across the United States. Early 2021 data suggests rebounding traffic congestion levels, and points to a continued need to find solutions to reducing delay, including through the provision of alternate modes of travel.<sup>8</sup> Where feasible, ferries have the potential to serve a role in reducing roadway congestion.<sup>9</sup>

Improvements in battery technology hold the potential for expanding electrification in public ferry systems. Ferries in particular are well suited for electrification, compared to other maritime applications, due to short travel distances and sufficient space for battery packs onboard.<sup>10</sup> In recognition that ferries generate the most carbon and other greenhouse gas emissions of any Washington State government source, Washington has emerged as a leader in ferry electrification, following the signing of an Executive Order (EO 20-01) by Governor Jay Inslee in 2019 to transition the state's ferries to be a zero-carbon-emission fleet.<sup>11</sup>

<sup>7</sup> "2021 Public Transportation Fact Book" *American Public Transportation Association*, (May 2021) <https://www.apta.com/wp-content/uploads/APTA-2021-Fact-Book.pdf>.

<sup>8</sup> "2021 Urban Mobility Report" *Texas A&M Transportation Institute*, (June, 2021) <https://static.tti.tamu.edu/tti.tamu.edu/documents/mobility-report-2021.pdf>.

<sup>9</sup> 2015 National Transit Summary and Trends (National Transit Database). *Federal Transit Administration Office of Budget and Policy*. Oct. 2016. <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/2015%20NTST.pdf>

<sup>10</sup> <https://connect.ncdot.gov/projects/research/Pages/ProjDetails.aspx?ProjectID=2022-01>

<sup>11</sup> 20-01 SEEP Executive Order (tmp).pdf (wa.gov) [[https://www.governor.wa.gov/sites/default/files/execute\\_order/20-01%20SEEP%20Executive%20Order%20%28tmp%29.pdf](https://www.governor.wa.gov/sites/default/files/execute_order/20-01%20SEEP%20Executive%20Order%20%28tmp%29.pdf)]

WITNESS LIST

- Patty Rubstello, Assistant Secretary for Ferries, Washington State Department of Transportation
- Seamus Murphy, Executive Director, San Francisco Bay Area Water Emergency Transportation Authority (WETA)
- The Honorable Frank J. Principi, Chair, M-495 Regional Commuter Ferry Group
- Kyle Godar, County Engineer, Calhoun County Highway Department (Illinois)

## EXAMINING THE ROLE OF FERRIES IN IMPROVING MOBILITY

TUESDAY, SEPTEMBER 28, 2021

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT,  
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10 a.m. in room 2167 Rayburn House Office Building and via Zoom, Hon. Eleanor Holmes Norton (Chair of the subcommittee) presiding.

Members present in person: Ms. Norton, Mr. Garamendi, Mr. Lynch, Mr. Auchincloss, Mr. Rodney Davis, and Mr. LaMalfa.

Members present remotely: Ms. Johnson of Texas, Mr. Sires, Mr. Johnson of Georgia, Ms. Wilson of Florida, Mr. DeSaulnier, Mr. Delgado, Mr. Lamb, Ms. Bourdeaux, Ms. Strickland, Mrs. Napolitano, Mr. Huffman, Mr. Carbajal, Ms. Davids of Kansas, Mr. Moulton, Ms. Williams of Georgia, Mr. Massie, Mr. Balderson, Mr. Johnson of South Dakota, Mr. Guest, Mr. Nehls, Ms. Mace, Ms. Malliotakis, Mr. Gimenez, and Mrs. Steel.

Ms. NORTON. The subcommittee will come to order.

I ask unanimous consent that the chair be authorized to declare a recess at any time during today's hearing.

Without objection, so ordered.

I also ask unanimous consent that Members not on the subcommittee be permitted to sit with the subcommittee at today's hearing and ask questions.

Without objection, so ordered.

As a reminder, please keep your microphone muted unless speaking. Should I hear any inadvertent background noise, I will request that the Member please mute his or her microphone.

To insert a document into the record, please have your staff email it to DocumentsT&I@mail.house.gov.

So let me begin.

I want to welcome all to today's hearing, "Examining the Role of Ferries in Improving Mobility."

While the Subcommittee on Highways and Transit currently oversees two ferry programs—one under the Federal Highway Administration and one under the Federal Transit Administration—this is the first hearing the subcommittee has ever held on ferry transportation. This is a historic hearing and, given climate control issues, it could not be more apt.

Our transportation system is facing significant challenges: traffic gridlock that wastes time and money; inequality and lack of accessibility; a changing climate that causes severe storms and increas-

ing flooding; and serving as the number-one source of greenhouse gas emissions. There is no silver bullet to solving these problems. But providing more transportation choices is a step in the right direction.

One of my priorities as subcommittee chair has been ensuring that we consider innovative and varied modes of transportation, whether improved public transit, new approaches to micromobility, such as scooters, or utilizing our waterways to move people.

Here in the DC metropolitan area, we face some of the worst traffic congestion in the country. A 2017 study by the traffic data firm INRIX found that the worst traffic hotspot in the country was along Interstate 95 between the Fairfax County Parkway and Fredericksburg, Virginia. One of our witnesses, Frank Principi, represents a coalition looking to expand ferry service along that very corridor, which could help to improve that traffic bottleneck and provide more transportation options.

We know that we cannot solve congestion by simply building more highway lanes—in many congestion areas, more roads simply mean more traffic. That means we need to pursue alternatives, including expanded ferry service.

Ferries also have the potential to help us reduce carbon pollution. While passenger cars and light-duty trucks account for 58 percent of U.S. transportation greenhouse gas emissions, ships and boats account for just 2 percent. Shifting more trips from highways to waterways holds great promise for reducing our carbon footprint. It can also reduce other forms of air pollution, including smog that causes asthma attacks, heart attacks, and other adverse health outcomes.

While maritime modes of transportation like ferries are among the cleanest transportation options already, their emissions can be reduced even further, as operators begin converting their fleets to hybrid, electric, or alternative fuels. I look forward to hearing from witnesses today about their efforts toward fleet conversion.

Ferry service not only provides an important transportation option, it also represents an investment in our communities. It can be a catalyst for revitalization, expanding access to small businesses and community centers, and bolstering the local economy.

As we work to build a transportation system that is better, more innovative, sustainable, and equitable, we must ensure that the Federal Government is a strong partner for those operating ferry service, and those who wish to launch new routes. That means providing funding options through our Federal programs and doing the research and data collection needed to guide these investments.

I thank each of our witnesses for joining us today and look forward to your testimony.

[Ms. Norton's prepared statement follows:]

---

**Prepared Statement of Hon. Eleanor Holmes Norton, a Delegate in Congress from the District of Columbia, and Chair, Subcommittee on Highways and Transit**

Welcome to today's hearing examining the role of ferries in mobility. While the Subcommittee on Highways and Transit currently oversees two ferry programs—one under the Federal Highway Administration and one under the Federal Transit Ad-

ministration—this is the first hearing the subcommittee has held on ferry transportation.

Our transportation system is facing significant challenges—traffic gridlock that wastes time and money; inequality and a lack of accessibility; a changing climate that causes severe storms and increased flooding; and serving as the number one source of greenhouse gas emissions.

There is no silver bullet to solving these problems—but providing more transportation choices is a step in the right direction. One of my priorities as subcommittee chair has been ensuring that we consider innovative and varied modes of transportation—whether improved public transit, new approaches to micromobility such as scooters, or utilizing our waterways to move people.

Here in the D.C. metropolitan area, we face some of the worst traffic congestion in the country. A 2017 study by the traffic data firm Inrix found that the worst traffic hotspot in the country was along Interstate 95 between the Fairfax County Parkway and Fredericksburg, Virginia. One of our witnesses, Frank Principi, represents a coalition looking to expand ferry service along that very corridor, which could help to improve that traffic bottleneck and provide more transportation options.

We know that we cannot solve congestion by simply building more highway lanes—in many congested areas, more roads simply means more traffic. That means we need to pursue alternatives, including expanded ferry service.

Ferries also have the potential to help us reduce carbon pollution. While passenger cars and light-duty trucks account for 58 percent of U.S. transportation greenhouse gas emissions, ships and boats account for just 2 percent. Shifting more trips from highways to waterways holds great promise for reducing our carbon footprint. It can also reduce other forms of air pollution, including smog, that cause asthma attacks, heart attacks, and other adverse health outcomes.

While maritime modes of transportation like ferries are among the cleanest transportation options already, their emissions can be reduced even further as operators begin converting their fleets to hybrid, electric, or alternative fuels.

I look forward to hearing from our witnesses today about their efforts toward fleet conversion.

Ferry service not only provides an important transportation option, it also represents an investment in our communities. It can be a catalyst for revitalization, expanding access to small businesses and community centers and bolstering the local economy.

As we work to build a transportation system that is more innovative, sustainable, and equitable, we must ensure that the federal government is a strong partner for those operating ferry service, and for those who wish to launch new routes. That means providing funding options through our federal programs and doing the research and data collection needed to guide these investments.

I thank each of our witnesses for joining us today and look forward to the testimony.

Ms. NORTON. I am pleased to ask our ranking member, Mr. Davis, for an opening statement.

Mr. DAVIS. Thank you, Madam Chair. Great to see you. Great to be here, and a really great issue to address.

I do want to welcome everybody to today's hearing on the role of ferries in improving mobility. I especially want to welcome Kyle Godar, the county engineer from Calhoun County, Illinois. Mr. Godar is my constituent and has been working with my office to resolve an issue that Calhoun County, which is a county that is a peninsula that sits between the Illinois and Mississippi Rivers, but they have a problem utilizing its ferry boat program funding. My hope at this hearing is to draw attention to this problem, so that we can finally get the Federal Highway Administration and the Army Corps of Engineers to come together to find a solution.

At this time, Madam Chair, I would ask unanimous consent to submit for the record my letter that I sent to both agencies 5½ months ago, requesting coordinated technical assistance in resolving this issue.

Ms. NORTON. So ordered.  
[The information follows:]

**Letter of April 21, 2021, from Hon. Rodney Davis, a Representative in Congress from the State of Illinois, to Stephanie Pollack, Acting Administrator, Federal Highway Administration and Vance F. Stewart III, Acting Assistant Secretary of the Army (Civil Works), Army Corps of Engineers (Civil Works), Submitted for the Record by Hon. Rodney Davis**

APRIL 21, 2021.

STEPHANIE POLLACK,  
*Acting Administrator,*  
*Federal Highway Administration (FHWA), 1200 New Jersey Ave., SE, Washington, DC 20590.*

VANCE F. STEWART, III,  
*Acting Assistant Secretary of the Army (Civil Works),*  
*Army Corps of Engineers (Civil Works) (Corps), 108 Army Pentagon, Washington, DC 20310-0108.*

DEAR ACTING ADMINISTRATOR POLLACK AND ACTING ASSISTANT SECRETARY STEWART:

I write to request technical assistance from both the Federal Highway Administration (FHWA) and the Army Corps of Engineers (Corps) to resolve an issue my constituent, the Calhoun County Highway Department, currently faces. Additionally, I respectfully ask that your agencies coordinate in assisting me to successfully resolve this issue.

At issue is the inability of the Calhoun County Highway Department to utilize FHWA Ferry Boat Program (FBP) funding to make improvements to the Golden Eagle Ferry landing. Calhoun County is in Illinois along the Mississippi River. The Golden Eagle Ferry landing is located across the Mississippi River in St. Charles County, Missouri. The needed improvements would occur on land owned by the Corps and leased to the ferry operator hired by Calhoun County, and on private land on which the ferry operator owns a private easement.

This issue has been separately raised with your respective agencies, though never at the same time. Your respective agency staff were responsive, and I appreciate their assistance.

On March 4th, 2019, my staff raised this issue with FHWA. At that time, FHWA determined that FBP funds could not be used, nor could Surface Transportation Block Grant Program (STBG) funds because a portion of the improvements would occur on a private road. Additionally, even if the road were public, FBP funds could not be used because FHWA determined the improvements would occur on an approach road. Alternatively, if it were a public road, STBG funds could be utilized to make improvements.

On July 13th, 2020, my staff raised this issue with the Corps. The purpose of the email was to see if it would be possible for the Corps to purchase the private land connecting the Corps' property to the public highway system, and if the Corps could obligate funds to improve the road on the Corps' property. At that time, it was determined the Corps could not purchase the private land because the land was not necessary to the authorized flood control project. Additionally, it was determined that the Corps could not obligate funding to improve the road because it was not part of the Corps' authorized project.

My goal in seeking coordinated technical assistance from FHWA and the Corps is to find a solution that allows the Calhoun County Highway Department to improve the safety and mobility of ferries utilizing the Golden Eagle Ferry landing. I appreciate your consideration of this request and am happy to provide further details as needed.

Sincerely,

RODNEY DAVIS,  
*Member of Congress.*

Mr. DAVIS. And 5½ months is a long time, and it is pretty frustrating when we don't get responses from the Federal agencies that we send letters to.

I would ask, if we continue to not get responses, Madam Chair, if you and I can maybe do a joint letter to let these agencies know we would just appreciate a response.

Ms. NORTON. I would be happy to join the ranking member in such a letter.

Mr. DAVIS. Thank you. Thank you very much.

Under current law this subcommittee authorizes two programs that provide Federal funds for ferry transportation. The Ferry Boat Discretionary Program is administered by the Federal Highway Administration, and the Passenger Ferry Grant Program is administered by the Federal Transit Administration.

The Senate's bipartisan infrastructure bill includes two new ferry boat programs and grows ferry program funding levels from \$550 million to \$2.3 billion.

Ferries serve diverse areas of our country, much like our highway and bridge network, from urban and coastal areas to rural America. As I mentioned earlier, I have a ferry in my district—actually, multiple ferries—that operate from Illinois across the Mississippi River to Missouri. And also, we have ferries that operate intrastate between Greene County and Jersey County, Illinois, over to Calhoun, and that is what Mr. Godar is here to discuss.

The importance of that ferry to the community it serves cannot be understated, which is why it is so important to resolve Mr. Godar's issues. While ferry service certainly is not a solution for each State, it is important to understand the role ferries play in quickly connecting people and communities through water crossings.

It is also important to understand the needs of ferry boat and facility owners and operators. Addressing these needs, as those here before us today will testify, is critical to improving our ferry operations.

I look forward to hearing about ferry ridership, technological innovations, challenges ahead, and proposed solutions identified in implementing ferry boat programs.

With that, I want to thank our witnesses for joining us this morning, and I look forward to hearing their testimony.

[Mr. Davis's prepared statement follows:]

---

**Prepared Statement of Hon. Rodney Davis, a Representative in Congress from the State of Illinois, and Ranking Member, Subcommittee on Highways and Transit**

Thank you, Chair Norton. I want to welcome everyone to today's hearing on the role of ferries in improving mobility. I especially want to welcome Kyle Godar, the County Engineer from Calhoun County, Illinois. Mr. Godar is my constituent and has been working with my office to resolve an issue Calhoun County has with utilizing its Ferry Boat Program funding. My hope at this hearing is to draw attention to this problem, so that we can finally get the Federal Highway Administration and the Army Corps of Engineers to come together and find a solution. At this time, I'd ask unanimous consent to submit for the record my letter I sent to both agencies in April of this year requesting coordinated technical assistance in resolving this issue.

Under current law, this subcommittee authorizes two programs that provide Federal funds for ferry transportation. The Ferry Boat Discretionary Program is administered by the Federal Highway Administration (FHWA), and the Passenger Ferry Grant Program is administered by the Federal Transit Administration (FTA). The Senate's bipartisan infrastructure bill includes two new ferry boat programs and grows ferry program funding levels from \$550 million to \$2.3 billion.

Ferries serve diverse areas of our country, much like our highway and bridge network, from urban and coastal areas to rural America.

As I mentioned earlier, I have a ferry in my district that operates across the Mississippi River between Illinois and Missouri that Mr. Godar is going to discuss. The importance of that ferry to the community it serves cannot be understated, which is why it is so important to resolve Mr. Godar's issues.

While ferry service certainly is not a solution for each state, it is important to understand the role ferries play in quickly connecting people and communities through water crossings. It also is important to understand the needs of ferry boat and facility owners and operators. Addressing these needs, as those here before us today will testify, is critical to improving our ferry operations.

I look forward to hearing about ferry ridership, technological innovations, and challenges and proposed solutions identified in implementing ferry boat programs. With that, I want to thank our witnesses for joining us this morning, and I look forward to hearing their testimony.

Mr. DAVIS. I yield back.

Ms. NORTON. I thank my good friend for his opening statement.

I would now like to welcome our witnesses on our panel: Ms. Patty Rubstello, assistant secretary for ferries, Washington State Department of Transportation; Mr. Seamus Murphy, executive director of the San Francisco Bay Area Water Emergency Transportation Authority; the Honorable Frank Principi, chair, M-495 Regional Commuter Ferry Group; and Mr. Kyle Godar, county engineer, Calhoun County Highway Department. I thank each of you for being here, and I look forward to your testimony.

Without objection, our witnesses' full testimony will be included in the record.

Since your written testimony has been made a part of the record, the subcommittee requests that you limit your oral testimony to 5 minutes. Let us proceed with Ms. Rubstello.

You may proceed.

**TESTIMONY OF PATTY RUBSTELLO, P.E., ASSISTANT SECRETARY, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, FERRIES DIVISION; SEAMUS MURPHY, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA); HON. FRANK J. PRINCIPI, CHAIRMAN, M-495 FAST FERRY STAKEHOLDER GROUP, NORTHERN VIRGINIA REGIONAL COMMISSION; AND KYLE GODAR, COUNTY ENGINEER, CALHOUN COUNTY, ILLINOIS**

Ms. RUBSTELLO. Chairwoman Norton, Ranking Member Davis, and distinguished members of the subcommittee, thank you for the opportunity to testify today to share information about Washington State's ferry system. My name is Patty Rubstello, and I serve as assistant secretary at Washington State Department of Transportation, leading the Ferries Division.

WSDOT operates Washington State Ferries, the Nation's largest ferry system, which is a transit system, a part of the Washington State highway system, and a vessel and terminal operator. We work with many Federal agencies, including the Federal Highway Administration, Federal Transit Administration, U.S. Maritime Administration, and U.S. Coast Guard. We value our Federal partnerships and want to thank the committee for the critical funding support that allows us to provide this critical service.

I would like to share a graphic of our system.

[Slide shown.]

Ms. RUBSTELLO. We transport nearly 24 million customers per year on 10 routes, served by a fleet of 21 vessels. We operate and maintain 20 terminals.

We also have agreements with two counties, who provide passenger-only ferry service utilizing our facilities.

Ridership on Washington State Ferries is expected to grow by 30 percent by 2040, climbing to nearly 32 million passengers a year.

For western Washington, ferries play an important role in mobility, connecting urban areas with rural and affordable communities, and our islands that are completely dependent on our service. Often the “drive-around” option for many travelers means several hours on highways and local roads, compared to a relatively brief ferry trip. One of our busiest commuter routes, the ferry between Bainbridge Island and downtown Seattle, transports over 3 million walk-on passengers a year. Many of these customers connect to other forms of transit on each side of the water, reaching their destination without the use of single-occupant vehicles.

While Federal funding, which comprises approximately 25 percent of our capital and operating budget, has been critical to maintaining and operating our services and facilities, we need additional resources to preserve and modernize our aging fleet and infrastructure. Over the next 20 years, 13 of Washington’s ferries will need to be replaced. Additionally, an increased number of relief or standby vessels are required to ensure reliable service. The estimated cost of all of this over the next 20 years is \$14.6 billion. Dedicated State tax revenue and fare collection would cover \$7.7 billion of these costs.

Given that so many of our older diesel vessels are due for replacement in the near future, this is an opportune time to electrify our fleet. Washington State Ferries’ diesel fuel consumption makes it the largest generator of carbon and other greenhouse gas emissions from Washington State government sources, so we are moving toward a zero-emission fleet. Our near-term plan is to convert our three largest vessels to hybrid electric. Their hybridization, coupled with installation of shoreside charging, will reduce fleetwide emission by 27 percent, the equivalent of taking more than 10,000 cars off the road. We estimate the fully hybrid fleet would reduce our energy consumption by 30 percent, saving us \$19 million per year in operating costs.

I want to acknowledge and thank Congressman Larsen for his longstanding support of Washington State Ferries. In particular, his commitment to the ferry electrification. We are pleased to see electric ferry programs in both the INVEST Act and in the Infrastructure Investment and Jobs Act.

Operating a ferry system has its challenges. The impact of the pandemic and the global shortage of mariners has led to extraordinary service challenges. At the lowest point of the pandemic, our ridership had fallen 75 percent, with walk-on riders down nearly 90 percent. As nearly 75 percent of our operating budget is derived from fares, our budget was significantly impacted.

I want to thank Congress for the Federal relief funding we received via the FTA transit programs to help cover some of those operating losses. This funding ensured that we could maintain our

critical services, including getting essential workers to their jobs and lifeline access to island communities.

We are slowly seeing ridership increase. While some routes over the summer returned to pre-pandemic levels, others are still lagging.

The pandemic also exacerbated workforce shortages. Retirements, limited training class size due to social distancing requirements, and global shortage of mariners has made hiring enough qualified staff even more difficult. We are working diligently to provide the right level of service, while constantly communicating with our customers about the impact.

As the Nation's largest ferry system, we strive to be a leader for sustainable growth, reducing congestion on roads and embracing new, greener technologies while providing safe and reliable service. We appreciate and depend on Congress' support for this work.

Thank you again for the honor and opportunity to testify today, and I am happy to answer any questions. Thank you.

[Ms. Rubstello's prepared statement follows:]

---

**Prepared Statement of Patty Rubstello, P.E., Assistant Secretary,  
Washington State Department of Transportation, Ferries Division**

INTRODUCTION

Chairman Norton, Ranking Member Davis, and distinguished members of the subcommittee, thank you for the opportunity to testify today to share information about the Washington State Ferries system. My name is Patty Rubstello, and I serve as Assistant Secretary of the Washington State Department of Transportation (WSDOT) leading the Ferries Division.

WSDOT operates Washington State Ferries (WSF), the nation's largest ferry system, which is a transit system, a part of the Washington State highway system and a vessel and terminal operator. This affords us the opportunity to work with many federal agencies including the Federal Highway Administration, Federal Transit Administration, U.S. Maritime Administration, and the U.S. Coast Guard. We value our federal partnerships and want to thank the committee for the critical funding support we receive.

We transport 23.9 million customers per year on 10 routes served by a fleet of 21 vessels. We operate and maintain 20 terminals. Ours is the second largest ferry system in the world for vehicles carried, transporting nearly 10.5 million vehicles in 2019. We provide service to both rural and urban areas, and we are a critical lifeline service to our San Juan Islands and Vashon Island communities, for which driving around is not an option. We also operate a popular international route to Vancouver Island in British Columbia. Our Eagle Harbor Maintenance Facility is the largest state-owned shipyard in the United States. Currently celebrating 70 years of service, Washington's ferries have become as iconic as the majestic waterways and landscapes they sail through. In addition, WSF has an impeccable safety record that makes the system a model for ferry operators around the globe.

My remarks today will center around the following key points:

- An overview of the critical services we provide and the role we have in improving mobility.
- The continued need for strong federal support for public ferry systems.
- Our initiative to electrify our fleet to ensure system reliability.
- Current challenges including the effects of the COVID-19 pandemic and workforce shortages.

WASHINGTON STATE FERRIES OVERVIEW AND ROLE IN IMPROVING MOBILITY

More than just a transportation system, the ferries mean many things to many people: a link in their multimodal journey connecting regional transit systems; a connection to work or school; a popular attraction for visitors and connection to recreation; a mainland connection for island communities; and a fundamental link for freight mobility and economic prosperity. The ferry system is both a critical com-

ponent of the state highway system and the third largest transit system in Washington state. In 2019, WSF published its Long-Range Plan reflecting the extensive and robust engagement of more than 7,000 ferry riders, community members, tribes, government agencies and officials, businesses, transit partners and others. It serves as a blueprint to guide our investments and service for the next 20 years while considering the changing needs of ferry system users and associated funding opportunities and challenges.

Ridership on WSF is expected to grow more than 30 percent by 2040, climbing to nearly 32 million passengers a year. Our traditional weekday commute patterns and demographics are changing (even before the COVID-19 pandemic dramatically shifted ridership patterns and volumes), recreational and other discretionary trips are increasing, and an aging population requires more special transportation services. The heart of our service lies in and around Puget Sound connecting communities to each other and to the city of Seattle, one of the fastest growing metropolitan areas in the nation.

For Western Washington, ferries play an important role in reducing congestion, connecting urban communities on the east side of Puget Sound with the Olympic and Kitsap Peninsulas and island communities. The Central Puget Sound area, including Seattle, experiences some of the worst congestion in the United States. As the Seattle area grows and real estate prices soar, ferries play an essential role in connecting jobs in urban cores with more affordable housing outside the metro area without adding to cars on the road. Often, the “drive-around” option for many travelers means several hours on highways and local roads compared to a relatively brief ferry trip. The cost to drivers of a single missed sailing ranges from \$36–137 for each of WSF’s routes based on distance and the amount of time it takes to drive around. In addition, we have agreements with two counties who provide passenger only ferry service utilizing our facilities. We partner with local passenger-only ferry operators and transit systems to adjust service when needed or to work together to provide mobility options for our customers.

One of our busiest commuter routes, the ferry between Bainbridge Island and downtown Seattle, transports nearly 3.3 million walk-on passengers a year. During busy commute times, we routinely see thousands of walk-on customers on each sailing. Many of these customers connect to other forms of transit on each side of the water, connecting to their destinations without the use of single occupancy vehicles.

WSF is also working to incorporate new technologies that will allow customers to access more up-to-date information about the ferry system and connect with the rest of the region’s transportation network in innovative new ways. For example, many ferry customers already plan trips and pay for tickets via smartphone apps, regional fare programs and other tools, which allows them to make a more seamless door-to-door trip.

#### THE CONTINUED NEED FOR STRONG FEDERAL SUPPORT OF PUBLIC FERRY SYSTEMS

We greatly appreciate the federal support we receive for our ferry system. Approximately 25 percent of our capital and operating budget comes from federal sources. We depend on the FHWA Ferry Boat Program to support vessel preservation and terminal facilities and the FTA Passenger Ferry Grant Program for preserve our vessels. As the third largest transit provider in the state, we receive urban transit funding to support ferries operations. These funds are suballocated through the Puget Sound Regional Council, our state’s largest Metropolitan Planning Organization.

Federal formula and discretionary grant funds were critical for two major terminal projects. In 2020, WSF completed construction of a new replacement terminal at Mukilteo—our first new terminal in over 40 years. Approximately 38 percent of funding for this \$187 million project came from federal sources. The project embodies our commitment to addressing climate change and equity. WSF consulted with 11 federally recognized tribes to design and construct the project in a way that was consistent with treaty reserved fishing rights and sensitive cultural resources in the project area. It was designed and built to LEED Gold standards, and removed an abandoned U.S. Air Force fueling pier comprised of over 4,000 creosote-soaked timber piles from Puget Sound. This project also improved multimodal connections to an adjacent transit center and commuter rail station.

Our Seattle Multimodal Terminal at Colman Dock Project on the Seattle waterfront is replacing an aging and seismically-vulnerable dock in order to maintain its critical role as a regional multimodal transportation hub. Serving freight customers and passengers for 140 years, the routes serving this terminal carry 10 million passengers and over 2.4 million vehicles annually. Approximately 52 percent of funding

for this \$438 million project comes from federal sources. Construction on this project is expected to be completed in 2023.

While federal funding has been critical to maintaining and operating our services and facilities, we need additional resources to preserve and modernize our aging fleet and infrastructure. Over the next 20 years, WSF needs a coordinated set of investments in its fleet, terminal infrastructure, workforce and technology. In addition, WSF's retiring vessels should be replaced with those that are strategically designed to more easily accommodate growing ridership, with flexible passenger and car-deck space to better serve the particular demands of a route. A more efficient fleet needs to be supported by resilient terminals that support vessel charging infrastructure, enhanced technology for efficient fare collection, and better access to transit and other modes of transportation. The WSF workforce must be further strengthened with more active recruitment, development, and retention.

Our needs are great. Over the next 20 years, 13 of Washington's ferries will need to be replaced. Additionally, an increased number of relief or "standby" vessels are required to ensure reliable service and adequate time for vessel maintenance and preservation to keep ferries operating for up to 50 and 60 years, depending on the condition of the vessel. In addition to the need for more relief vessels to ensure the fleet receives the maintenance time it needs, over half of the fleet will be retired over the next 20 years.

The estimated cost of all of this over the next 20 years is \$14.6 billion. Dedicated state tax revenue and fare collection, which is projected to provide nearly 80 percent of WSF's operating costs in 2040, would cover \$7.7 billion of these costs. Our farebox recovery is remarkable when compared to the 20 to 30 percent recovery experienced by most transit operators. These investments are necessary to ensure system reliability and resilience, with the added benefit of increased operating efficiency.

#### ELECTRIFICATION OF THE WASHINGTON STATE FERRIES SYSTEM

WSF's diesel fuel consumption makes it the largest generator of carbon and other greenhouse gas emissions from Washington state government sources. According to the Puget Sound Clean Air Agency, diesel exhaust represents 78 percent of the potential cancer risk from all air toxics in Puget Sound. Diesel exhaust has also been linked to respiratory problems, cardiovascular problems, and premature death. We are working on several projects to meet the goals of Governor Jay Inslee's Executive Order 20-01, which directs WSF to move toward a zero emissions fleet.

WSF is undertaking this ambitious initiative to electrify the system with plug-in hybrid-electric vessels and terminal enhancements to achieve reduced environmental impact and energy costs. We are focused on building a reliable fleet that has a lighter footprint on the environment and outperforms CO2 reduction targets. We estimate that a hybrid fleet would reduce our energy consumption by 30 percent, saving us \$19 million per year in operations cost.

In general, nearly every route within the WSF system can be served by a hybrid-electric vessel. The extent to which each vessel can maximize the advantage of its electric propulsion technology depends on a variety of elements, such as route length, vessel size and weight, amount of time spent at the dock to charge the vessel, and power availability at the terminal. Converting to a hybrid-electric propulsion fleet also takes advantage of Puget Sound's clean power sources including hydroelectric, wind and solar. When fully realized, we estimate reductions of 53 percent greenhouse gas emissions (CO<sub>2e</sub>) by 2030, and 76 percent by 2040, from baseline 2005 emissions levels.

This initiative comes at an opportune time given that many of our older diesel vessels are due for replacement in the near future. While the complete conversion to a hybrid-electric fleet will take some time, the benefits will be seen almost immediately with the planned retrofit and upgrade of WSF's three Jumbo Mark II Class vessels. These ferries, which each carry 202 vehicles, are the largest source of emissions in the fleet. Their hybridization will reduce fleet-wide emissions by 27 percent once shore charging is available and will reduce carbon emissions by 48,565 metric tons/year—the equivalent of taking more than 10,000 cars off the road. In addition, we are beginning construction early in 2022 on our first new build hybrid-electric Olympic Class ferry and it's expected to enter service in 2025.

To fully realize and meet emission reduction targets, terminal charging infrastructure must be in place. This improvement is required at nearly every one of WSF's 20 terminals, representing \$280 million of total capital investment over the next 20 years. We have a near-term plan for terminal electrification capital improvements at three priority terminals at an estimated cost of \$50.2 million.

I want to acknowledge and thank Congressman Larsen for his longstanding support for Washington State Ferries and in particular his commitment to ferry elec-

trification. We were pleased to see Electric Ferry Programs in both the INVEST Act and the Infrastructure Investments and Jobs Act. The electrification of Washington's ferry system is an ambitious plan with the opportunity for dramatic emissions reductions and the potential to exercise leadership within the greater maritime industry.

#### CHALLENGES RESULTING FROM COVID-19 PANDEMIC AND WORKFORCE SHORTAGES

The impacts of the COVID-19 pandemic and a global shortage of mariners has led to extraordinary service challenges at Washington State Ferries. At the lowest point in the pandemic, in March 2020, total ridership had fallen 75 percent compared to the last week of February 2020. Vehicle ridership fell by 63 percent, with walk-on passenger ridership falling by 90 percent. Given that nearly 75 percent of our operating budget is derived from fares, our budget was significantly impacted. For example, total farebox revenue in March and April 2020 was approximately \$14M, just half of what was forecast to be collected. (Farebox revenue for the same time period in 2019 was \$29M.) WSF tried to mitigate the budget impacts by offering reduced service. I want to thank Congress for the federal relief funding we received, via the FTA transit programs, to help cover some of our operating losses. This funding ensured that we could maintain our essential services—including getting essential workers to their jobs and lifeline access to island communities. We are slowly seeing ridership increase. While some routes over the summer returned to pre-pandemic levels, others are still lagging.

As businesses and operators across the country are experiencing, COVID-19 safety restrictions impacted WSF's ability to conduct vessel maintenance and preservation work. At the beginning of the pandemic, all work was suspended as state and private shipyard employees were directed to work from home. We continue to experience supply chain interruptions affecting vessel parts and equipment. As guidelines changed and supply lines improved, WSF reorganized its state-owned Eagle Harbor Maintenance Facility to allow it to reopen in April 2020 and worked with shipyard contractors to allow work to resume on vessels in their yards.

The pandemic also exacerbated workforce shortages. All WSF vessels are crewed by maritime professionals credentialed by the U.S. Coast Guard. The WSF workforce is experiencing the same pressures felt by other employers nationwide, as a wave of people born during the post-World War II population boom start to retire. As of January 2019, slightly more than 30 percent of the vessel workforce, 37 percent of the terminal workforce, and 24 percent of the Eagle Harbor maintenance facility staff were eligible for retirement within the next five years. Hiring enough qualified deck officers presents a challenge. Earning a Master's license requires many years of training, testing and preparation, including piloting 16 round trips on each of WSF's 10 routes and successfully drawing pilotage maps from memory during testing. Most of this work must be accomplished on an employee's own time. Approximately 75 percent of WSF's Masters and Staff Masters will be retirement-eligible in the next five years. Retirements due to the pandemic, limited training class sizes due to COVID social distancing requirements, and a global shortage of mariners has made hiring enough qualified staff even more difficult.

The continued spread of COVID-19 in Washington state results in ongoing staff absences due to positive COVID-19 cases and quarantine requirements. For example, on a recent weekend, we had dozens of staff out with COVID-19 related issues—whether active cases, in quarantine, or receiving vaccinations. Over two days, we had 85 cancelled sailings systemwide due to 41 employees calling out sick. Canceled sailings have far-reaching impacts for customers that rely on ferry service to reach island communities and connect to parts of Washington state where the detour option often means hours of highway driving, added road miles and delays to freight mobility.

We have increased our recruitment and workforce development efforts and are embarking on a systemwide service reset to determine what levels of service we're able to provide with the resources available. Sailing schedules continue to be reduced and our messaging to customers about cancellations and disruptions has significantly increased in recent months.

#### CONCLUSION

As the nation's largest ferry system, we strive to be a leader for sustainable growth, reducing congestion on roads and embracing new, greener technologies while providing safe and reliable service. But, like much of America's aging infrastructure, the preservation and maintenance needs are significant to address aging vessels and terminals and to maintain reliable ferry service for those that depend upon it. We appreciate and depend on Congress' support as we continue our system-

wide electrification efforts to reduce carbon emissions, preserve our fleet and terminals, and increase workforce recruitment and development to become an employer of choice. We hope we can serve as a leader for ferry systems across the U.S. and around the world, providing an example for other jurisdictions to use as they consider ferries as an alternative to land-side congestion.

Thank you again for the honor and opportunity to testify today, and I am happy to answer any questions.



# Washington State Ferries

JANUARY 2021

## System facts

- Created June 1, 1951
- Largest ferry system in the United States
- Steady growth in yearly ridership in 2010s with an average of 23.4 million customers (14 million in 2020)
- Second largest ferry system in the world for vehicles carried with an average of 10.3 million/year in 2010s (7.6 million in 2020)
- Fleet of 21 auto-passenger vessels
- Operates 20 terminals on 10 routes
- About 2,000 employees
- 16 unions and 13 collective bargaining agreements

## Key functions

### Transit agency

- Third largest transit system in Washington (#1 King County Metro, #2 Sound Transit)

### Marine highway

- Part of state highway network, serving eight counties and British Columbia, Canada

### Link in region's multimodal connections

- Priority loading for freight, bicycles, vanpools and carpools
- Vehicle reservations on three routes

### Mover of freight and goods

- Ferries specially constructed to accommodate commercial vehicles

### Tourism, economic development

- Major tourist attraction and icon of Washington state
- Critical link between more affordable housing on the west side of Puget Sound and key employment centers on the east side

### Safe, secure travel

- Enforce procedures to ensure the safety and security of passengers by working with the Washington State Patrol and U.S. Coast Guard
- As a port of entry and border crossing, ensure the security of the U.S. border by working with U.S. Customs and Border Protection

@wsferries

[www.wsdot.wa.gov/ferries](http://www.wsdot.wa.gov/ferries)

## Challenges

### Operations and Maintenance

- Aging fleet with all but 12 vessels over 30 years old
- Ferries in service 20+ hours a day, so it is difficult to find time for adequate maintenance
- Only one relief boat, restricting system capacity when vessels breakdown
- Drydock capacity in Puget Sound limited and difficult to adjust for emergency repairs

### Workforce development

- Succession planning a critical priority
- Approximately half of vessel employees are 55 years old or older and may qualify for retirement in the next five to 10 years

### New construction

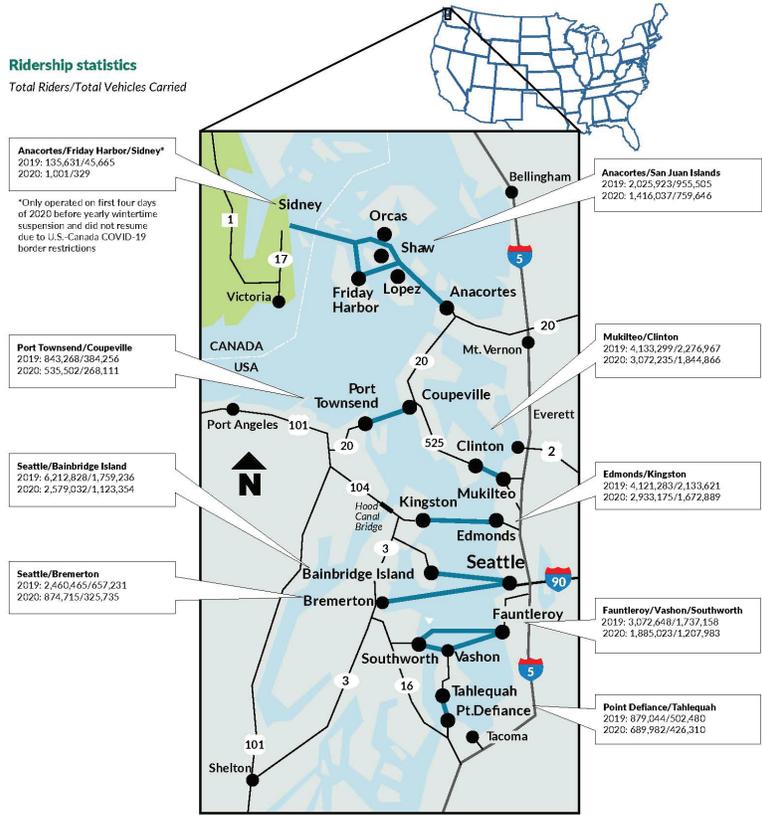
- Opened Mukilteo multimodal terminal in December 2020, system's first in 40 years
- Constructing multimodal terminal at Seattle's Colman Dock
- Building first hybrid-electric Olympic Class ferry
- Converting the fleet's largest Jumbo Mark II Class vessels from diesel to hybrid-electric propulsion

### 2040 Long Range Plan

- Plans for the future of the ferry system through 2040
- Calls for 16 new ferries to replace aging vessels and help stabilize the fleet
- Considers ridership growth of 30% over the next 20 years



**WSDOT Ferries Division – Nation's Largest Ferry System**



**Americans with Disabilities Act (ADA) Information:** This material can be made available in an alternate format by emailing the Office of Equal Opportunity at [wsdotada@wsdot.wa.gov](mailto:wsdotada@wsdot.wa.gov) or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

**Title VI Notice to Public:** It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7090.

21-01-0001

Ms. NORTON. Thank you, Ms. Rubstello.  
Next, Mr. Seamus Murphy.

Mr. MURPHY. Thank you, Chair Norton, Ranking Member Davis, and members of the subcommittee. I am Seamus Murphy, executive director of the San Francisco Bay Area Water Emergency Transportation Authority. Thank you for the opportunity to speak about San Francisco Bay Ferry service, our efforts to recover from the pandemic, plans for expansion, and our transition to zero-emissions technology.

WETA is a regional public transit agency in the bay area that carries over 3 million passengers a year aboard 15 high-speed passenger-only ferry vessels. Prior to the pandemic, San Francisco Bay

Ferry was the region's fastest growing transit service. Between 2013 and 2019, demand for ferry service increased over 160 percent, including 35 percent growth from 2019 to 2020.

Of course, like every other travel mode, all of that changed with COVID. WETA's ridership is historically commute-based, and most of them were able to transition immediately to remote work. Ridership initially dropped by 98 percent and remained between 7 percent and 12 percent of pre-COVID levels for the next 16 months. WETA reduced service to reflect that demand, but the system is highly fare dependent, so our ability to maintain even a minimum service level for essential workers is extremely limited.

Thankfully, Congress took action. On behalf of our riders, deckhands, pilots, and countless Americans who depended on essential workers to get us through the darkest days of the pandemic, thank you for everything Congress did to maintain transit as an essential service. Without that support, thousands of nurses, teachers, grocery clerks, construction workers, and others not able to work from home would have been stranded without a mobility option.

We used funding from those programs to invest in saving jobs, preserving services, and protecting the most vulnerable members of our communities. We are incredibly grateful. Thanks to these funds, in July, WETA became the first regional system in the bay area to fully restore service. In addition to relaunching service, we also lowered fares to align with other transit modes, and we shifted more service to the off peak to accommodate the needs of lower income, transit-dependent workers.

After implementing these changes, WETA ridership nearly doubled overnight, and it significantly outpaced other regional carriers. Congestion has fully returned to regional highways, and based on job and population growth in the area, there is a high likelihood that our system will eventually return to the level of growth we saw pre-COVID.

Before the pandemic, we were working with communities throughout the region to aggressively plan for expansion. As congestion has returned, communities are once again calling for more service. New neighborhoods are rapidly emerging along the bayfront. These are vibrant population and job centers with extremely congested access via surface streets. Water-based transit will be critical.

Our expansion plans will ensure that these emerging economic centers are connected, reducing regional congestion, and providing people of all income levels with access to jobs, healthcare, entertainment, and other opportunities.

As we prepare to grow, we are also advancing plans to grow sustainably, with an eye towards reducing greenhouse gas emissions. WETA has always been an environmental leader in developing clean vessel technology. From the beginning, WETA pushed for new diesel engine technology that exceeded EPA standards, but we believe we can go even further. With that in mind, WETA is developing plans that will transition about 50 percent of our fleet to zero emissions.

The cost of these improvements is being evaluated. We know that, aside from the cost of the vessels themselves, significant investment will be needed to equip our terminals with shoreside

charging infrastructure that supports a high-volume, high-frequency system.

All of these objectives—making ferry service more accessible, expanding our service to other parts of the bay, and converting our fleet to zero emissions—will require new investment. Our agency has access to local, regional, and State matching funds, but a robust Federal program is essential. The current level of funding available through the FTA program that supports ferries pales in comparison to the needs that exist around the country, let alone in the bay area.

This committee has long recognized this, and we have appreciated the committee’s leadership on making more funding available for public ferry systems. There was bipartisan support for increasing the level of funding for the FTA program to \$1.25 billion over 5 years, as a part of the infrastructure bill in the Senate. That funding increase was set to be added to the bill before it was rushed out of the Senate.

That level of investment would provide the resources needed to support this essential mode of transit around the country, and it would allow us at WETA to fulfill a very ambitious and necessary set of plans for growing ferry service in a sustainable way. We encourage you to find a way to add that funding to the program moving forward. Doing so will allow us to meet the goals that we know are shared by so many on this committee.

Again, thank you for the opportunity to testify before you today. I look forward to answering any questions you may have.

[Mr. Murphy’s prepared statement follows:]

---

**Prepared Statement of Seamus Murphy, Executive Director, San Francisco Bay Area Water Emergency Transportation Authority (WETA)**

Thank you Chair Norton, Ranking Member Davis, and members of the Subcommittee for the opportunity to speak about San Francisco Bay Ferry service, our efforts to recover from the pandemic, our plans for expansion, and our transition to zero emission technology.

WETA is a regional public transit agency that carries over three million passengers annually utilizing a fleet of 15 high-speed passenger-only ferry vessels. San Francisco Bay Ferry currently serves the cities of Alameda, Oakland, Richmond, San Francisco, South San Francisco, and Vallejo<sup>1</sup>.

Prior to the pandemic, WETA’s system was the Bay Area’s fastest growing transit service. Between 2013 and 2019, demand for ferry service increased over 160 percent, or an average of 23 percent every year. In the year before the pandemic, ridership increased a whopping 35 percent. In response to this surging demand, and in anticipation of future demand growth, we added seven new high capacity (400–445 passenger) vessels to our fleet, and we currently have four additional vessels under construction.

Of course, like every other travel mode, all of that changed during the pandemic. WETA’s historic ridership is commute-based, and almost all these riders were able to transition immediately to remote work. Ridership initially dropped by 98 percent and remained between 7 percent–12 percent of pre-covid levels for the next 16 months. WETA immediately reduced service to the minimum level needed to maintain a travel option for essential workers.

Before the pandemic, 60 percent of WETA’s operating costs were covered by fares. In the transportation space, that is very high, and it was a point of pride for the agency. But as a fare dependent system, WETA’s ability to maintain even a minimum service level in the face of dramatic ridership decline is extremely limited. Thankfully, Congress took action.

<sup>1</sup>See attached ferry route map.

On behalf of our riders, workers, deck-hands, pilots, and the countless Americans who depended on essential workers to get us through the darkest days of the pandemic, thank you for everything Congress did to maintain transit as an essential service. Without the support provided in the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) and the American Recovery Plan Act (ARPA), thousands of nurses, teachers, grocery clerks, construction workers, and others not able to work from home would have been stranded without a viable mobility option. We used funding from those programs to invest in saving jobs, preserving services, and protecting the most vulnerable members of our communities. We are incredibly grateful.

These funds are now being invested in expediting regional recovery. COVID relief funds have helped WETA become the first Bay Area transit system to fully restore service. WETA began implementing a Pandemic Recovery Program in July. The Program is a year-long series of fare and service changes focused on incentivizing ridership; testing the market for new travel patterns; and maximizing the relevance of our service for a new, more equitable post-pandemic ridership base.

So far, the Program is yielding very positive results. Before the pandemic, riders paid a premium for ferry travel. Customer satisfaction ratings were at 95 percent. Boats operated at maximum capacity. The higher fares reflected the high demand. But WETA operates service to some of the Bay Area’s most disadvantaged communities, and as a public transit operator, price should not be a factor in riders’ decision about which mode to choose. Through our Pandemic Recovery Program, WETA was able to lower fares and align those fares with other transit modes. We also added a significant amount of off-peak service to accommodate the needs of lower-income, transit-dependent workers who could not work from home and who did not follow traditional commute patterns.

	<b>Allocated by MTC/Rcvd</b>	<b>Expended</b>	<b>Balance</b>
CARES Act .....	18,756,857	18,756,857	–
CRRSAA .....	18,353,738	914,492	17,439,246
ARPA .....	14,133,854	–	14,133,854
<b>Total .....</b>	<b>51,244,449</b>	<b>19,671,349</b>	<b>31,573,100</b>

After implementing these changes, WETA ridership nearly doubled overnight. Systemwide ridership is approaching 40 percent of pre-pandemic levels and weekend ridership is over 60 percent of pre-pandemic levels. The off-peak service that we thought might attract new riders has proven to be very popular. While ridership on WETA services during the beginning of 2021 was consistent with other regional systems, since we made our July changes, WETA’s ridership has significantly out-paced other regional carriers.

We are well ahead of our fiscal year ridership projections. Congestion has fully returned to regional highways and based on job and population growth in the area, there is a high likelihood that our system will eventually return to the level of growth we saw pre-COVID. Before the pandemic, we were working with communities throughout the region to aggressively plan for expanded ferry service. While those plans are being updated to reflect post-pandemic realities, the fact is that we need to prepare for future increases in ridership.

New neighborhoods are rapidly emerging along the San Francisco bayfront. These are vibrant population and job centers with extremely congested access via surface streets. Alternative transportation options will be critical. Fortunately, plans are in place to build ferry infrastructure that will make water transit a major travel mode for thousands of new workers and residents. Our expansion plans will ensure that these emerging economic centers are connected to our current system, providing people of all income levels living throughout the Bay Area with access to jobs, health care, entertainment and other opportunities.

In addition to accounting for connectivity and accessibility, our expansion plans are aimed at reducing congestion in the region. To that end, new, congestion-reducing routes are planned for Berkeley and Redwood City. Additional new markets for ferry expansion are being created as population shifts from the urban core to outlying areas in the North Bay and East Bay subregions.

As we prepare to grow, we are also advancing plans to grow sustainably, and with an eye toward reducing greenhouse gas emissions. WETA has always been an environmental leader in developing clean vessel technology. From the beginning, WETA pushed for the development and implementation of new diesel engine technology that exceeded Environmental Protection Agency's (EPA) standards, proving to the industry that increasingly stringent Federal emissions requirements were achievable. WETA's newest vessels are the first passenger vessels in the country to achieve EPA's Tier 4 emissions standards. We are proud of the fact that these vessels will reduce an estimated 10 tons of GhG emissions annually.

But we believe we can go even further. With that in mind, WETA is continuing our focus on emission reductions with plans that would transition about 50 percent of our fleet to zero emissions. The cost of these improvements is being evaluated. We know that aside from the cost of the vessels themselves, significant investment will be needed to equip our terminals with shoreside charging infrastructure to support a high-volume, high-frequency system.

All these objectives: making ferry service more accessible, expanding our service to other parts of the Bay Area, and converting our fleet to zero emission, will require new investment. Our agency has access to local, regional and state matching funds, but a robust federal program is essential.

The current level of funding available through the FTA 5307(h) program that supports ferries pales in comparison to the needs that exist around the country, let alone in the Bay Area. This committee has long recognized this, and we have much appreciated the committee's leadership on trying to make more funding available for public ferry systems. The 2020 MOVING Forward Act and this year's INVEST in America Act both boosted funding for the FTA program.

There was bi-partisan support for increasing the level of funding for the FTA program to \$1.25 billion over 5 years as part of the bipartisan infrastructure bill in the Senate, and this funding increase was set to be added to the bipartisan infrastructure bill before it was rushed out of the Senate. That level of investment would provide the resources needed to support this essential mode of transit around the country, and allow WETA to fulfill a very ambitious, albeit necessary, set of plans to grow ferry service in the Bay Area in a sustainable way. We encourage you to find a way to add that funding to the program moving forward, thereby ensuring that adequate resources are available to meet the goals we know are shared by so many on this committee.

Again, thank you for the opportunity to testify before you today. I look forward to any questions you may have.

## ATTACHMENT—ROUTE MAP



Ms. NORTON. Thank you for your testimony, Mr. Murphy.  
Next, the Honorable Frank Principi.

Mr. PRINCIPI. Good morning, Madam Chairman, Ranking Member, and members of the committee. My name is Frank Principi, and I am a former local elected official from Prince William County, Virginia, and serve as the chairman of the Northern Virginia Regional Commission's M-495 Fast Ferry Stakeholder Group.

The NVRC is a regional planning council of 13 local governments in the northern Virginia suburbs of Washington, DC. And the Fast Ferry Stakeholder Group is comprised of more than 60 public, pri-

vate, and military organizations that have come together to support the launch of fast ferry service in the national capital region.

Today, people in this region waste an average of 102 hours stuck in traffic annually, translating into \$4.6 billion in lost time and fuel.

Our transit services in this region are time- and place-limited and/or at capacity. Diversification is key to improving mobility in this region. The ability to move goods and people at relatively low cost represents a substantial benefit for both our economy and our quality of life.

Our vision is to provide safe, reliable, and efficient passenger ferry transit service on the Occoquan, Potomac, and Anacostia Rivers. These waterways, designated as the “M-495 Marine Highway” by MARAD, will meet the needs of residents, tourists, and small freight. The system would be supported with a local commercial vessel maintenance and repair facility, as well. Rider amenities will be substantial, and passenger fares are expected to be competitive with existing transit service, and less than the cost of our toll lanes.

The envisioned service will serve both the north-south and cross-river commutes, with a fleet of 149 passenger vessels. The service will enhance fairness in mobility and will provide critical transportation links for areas currently underserved by transit to connect residents to new job centers. The service will include destinations in Virginia, like the Pentagon, National Airport, and Amazon HQ2 at National Landing; and in Maryland at Indian Head, National Harbor, and MGM Grand Hotel; and in the District of Columbia at Joint Base Anacostia Bolling, the new headquarters for the Department of Homeland Security, the Wharf, and, in the future, Poplar Point.

At full development, our system could provide mobility for 10,000 daily regional trips with shorter travel times. Given the significant and growing waterfront population densities and recent efforts to provide customers with near real-time package delivery, the service has the potential to improve freight mobility, and provide revenues to support passenger service.

The fleet of vessels could also provide the region with expanded emergency management capacity, including water rescues and evacuations.

We estimate primary job creation in the range of 100 to 200 jobs, initially.

The stakeholder group has endorsed the principle that the construction and operation of this new transit service should be conducted through a public-private military partnership. All partners would be expected to help finance the startup costs and participate in the governance structure. It is important to include the military, as their personnel make up 24 percent of our daily commuters in this region.

Starting this new service requires substantial upfront investment. Despite our best efforts, the \$17 million of Federal funds that were in the pipeline for this project have not materialized. We are asking the committee to reconsider our \$13 million earmark request sponsored by Madam Chair. The stakeholder group was willing to finance a 40-percent match of this amount, and our FTA

grant of \$4.2 million was awarded and later rescinded. This amount, together with an operating subsidy that was authorized in H.R. 2, would have enabled us to launch.

Given that the M-495 fast ferry service would quantitatively improve our throughput and provide long-term congestion relief, ferry service would be a great example of building back better here, in the national capital region.

Thank you again for your continued leadership on our country's infrastructure needs. I respectfully ask the committee to consider support of M-495. Thank you.

[Mr. Principi's prepared statement follows:]

---

**Prepared Statement of Hon. Frank J. Principi, Chairman, M-495 Fast Ferry Stakeholder Group, Northern Virginia Regional Commission**

I. INTRODUCTION

Good morning, Chairman, Ranking Member, and Members of the Committee. My name is Frank J. Principi. I am a former local elected official from Prince William County, Virginia and serve as the Chairman of the Northern Virginia Regional Commission's M-495 Fast Ferry Stakeholder Group. The Northern Virginia Regional Commission (NVRC) is a regional planning council of thirteen local governments in the Northern Virginia suburbs of Washington, DC. The Fast Ferry Stakeholder Group is comprised of 60+ public, private, and military organizations that support the launch of fast ferry transit service in the National Capital Region.

I'd like to take this opportunity to thank the Chairman and Ranking Member for their leadership in these policy and budget matters and conducting this hearing. I would also like to thank Madam Chairman Norton on her continued support and leadership of our efforts.

II. MOBILITY IN THE NATIONAL CAPITAL REGION

Today people in the National Capital Region waste an average of 102 hours stuck in traffic, translating into \$4.6 billion in lost time and fuel. I would add that we have some of the most reliably, unreliable commutes in the nation. While we have a transit system, we are proud of in the region, transit services are often time or place limited and/or at capacity. Diversification is key to improving mobility in the region. The ability to move goods and people at relatively low cost represents a substantial benefit for both our economy and our quality of life.

III. VISION

Our vision is to provide safe, reliable, and efficient passenger ferry vessel transit service on the Occoquan, Potomac, and Anacostia Rivers. These waterways were designated as the "M-495 Marine Highway" by the US Department of Transportation's Maritime Administration. The service is intended to meet the needs of residents, tourists, and small freight. The system would be supported with a local commercial vessel maintenance and repair facility.

Rider amenities will be substantial and passenger fares are expected to be competitive with existing transit and toll lanes in the region. The envisioned service will serve both the north-south and cross-river commutes with a fleet of 149 passenger vessels to provide links connecting residents to work, medical appointments, school, shopping, and tourist destinations. The service will enhance fairness in mobility and will provide critical transportation links for areas currently underserved by transit to connect people directly to job centers. Service focal points include locations in Virginia (Prince William County, Fort Belvoir, Pentagon, National Airport, National Landing); Maryland (Indian Head, National Harbor and MGM Grand Hotel) and the District of Columbia (Joint Base Anacostia Bolling, Department of Homeland Security, Wharf, Poplar Point). At full development, the system could provide mobility to accommodate about 10,000 daily regional trips.

Given the significant and growing waterfront population densities and recent efforts to provide customers with near real-time package deliveries, the service has the potential to improve freight mobility and provide revenue to support passenger

service. The fleet of vessels could also provide the region with expanded emergency management.

The ferry system will support job creation and job training opportunities and be a source of revenue creation for the three states and local governments. Once the system is launched, it will provide substantial labor income from direct, indirect, and induced jobs as well as opportunities for job training in maritime skills that are in high demand nationally. We estimate primary job creation in a range of 100 to 200 jobs, with the ability to offer training opportunities on an on-going basis.

#### IV. PUBLIC-PRIVATE-MILITARY PARTNERSHIP

The Stakeholder Group has endorsed the principle that the construction and operation of this new transit service should be conducted through a public-private-military partnership. All partners would be expected to help finance the initial start-up costs—capital and operating expenses—and participate in the governance structure. While the military is challenged to finance off-site transportation projects, their personnel make-up 24 percent of daily commuters in this region and these federal facilities would contribute through adaptation of existing shuttle bus services as well as technical support for installation of ferry terminals at military installations.

#### V. REQUEST TO CONGRESS

Starting this new service requires substantial up-front investment. Despite our best efforts we have had up to \$17 million in federal grant funds in the pipeline but have not been able to finalize any of those grants or that level of funding.

We are asking Congress to consider a \$13 million earmark for the M-495. Congresswoman Norton earlier sponsored an earmark request in that amount, but it was not awarded. The Stakeholder Group has been willing to create up to a 40 percent match. The earmark and the local match, together with a time-limited operating subsidy—something included in the House version of the infrastructure bill—would provide the upfront financial “bow wave” and allow us to launch this regional service.

We also request that the final version of the infrastructure bill include the House provision entitled, “Projects of National and Regional Significance,” projects that cannot be funded through annual apportionments or other discretionary sources. Given that the M-495 fast ferry transit service would quantitatively improve throughput and provide long-term congestion relief this ferry service would be a great example of “building back better.”

#### VI. CONCLUSION

Thank you again for your continued leadership on our country’s infrastructure needs and respectfully ask the Committee consider support of the M-495 Fast Ferry Service. I would be pleased to take any questions.

Ms. NORTON. Thank you, Mr. Principi.

Finally, we will hear from Mr. Kyle Godar.

Mr. GODAR. Hello, and I would like to thank the committee for the opportunity to testify today, to represent my community, the surrounding region, and similar communities across the country.

As you said, my name is Kyle Godar, and I am the county engineer for Calhoun County, Illinois. As a county engineer, I manage the county highway department, as well as the county unit road district. I oversee 300 miles of roadway, including two ferry terminals.

Calhoun County’s unique geographical location between the Mississippi River and the Illinois River at the confluence of the rivers leaves the county nearly surrounded by water. Calhoun County lies between Alton, Illinois, which is part of the St. Louis metropolitan area, and Louisiana, Missouri. This is an 80-mile section of the Mississippi River without a bridge crossing to the west, and with the Illinois River to the east. The surrounding area relies on four ferry operations to provide mobility through the region.

Although Calhoun County is in very close proximity to the St. Louis metro area, it remains a rural community because it is isolated by the rivers from the urban sprawl and expansion of the metro area. This barrier between urban and rural communities that the river creates has historically provided a natural barrier, which has preserved the entire area's natural resources and historic sites. This has protected the area's 20 wildlife management areas, 18 public access areas, 40,000 acres of protected enhanced wildlife habitat managed by Pere Marquette State Park, Two Rivers National Wildlife Refuge, and the Mississippi River State Fish and Wildlife Area, in addition to the area encompassed by the rivers themselves, and all of the privately owned farms, orchards, and wineries that provide locally grown produce to the metro area.

The four ferries that operate at Grafton, Golden Eagle, Brussels, and Kampsville provide the connection that allows those from the metropolitan area to visit, enjoy, and learn about the natural resources in the area. The four ferries not only serve to support tourism, but the majority of the passengers carried by the ferries are commuters who utilize the ferry system to drastically reduce the number of miles traveled during their commute. At the Golden Eagle location alone, nearly 600 riders each day are commuters.

By utilizing the ferry, these commuters are able to reduce their commute from a one-way, 80-mile trip on some of the most congested roads in the area, to a 30-mile average trip across some of the least-traveled roads in the area. Using ferries greatly reduces the congestion and the miles traveled. The Golden Eagle Ferry alone results in an annual reduction of nearly 8 million miles traveled.

Two of the ferries have also been repowered by CMAQ funds, helping reduce emissions.

And although the topic of the hearing is mobility, I think it is important to understand the life, health, and safety needs that the ferries provide, as well. Access to healthcare is an intrinsic need, and is only accessible to some by way of ferry. The absence of reliable ferry service could deny residents in this area life needs, even access to food at times.

All four of the ferry services in Calhoun County have had funding made available through allocation through the Ferry Boat Program. Unfortunately, guidance provided by FHWA, and some of the eligibility requirements associated with those funds, has rendered the county unable to use the funds as needed. Specifically, in one case, the ineligibility of "approach roadways" becomes a major issue for us.

Given the wide range of ferry service characteristics and ownership structures that exist, a one-size-fits-all approach to the ferry boat funding guidance has resulted in many ferry services allowing allotted funds to expire, including ours. Eliminating some of these eligibility issues, especially when associated with, for instance, the one-time discretionary funds that I believe are included in the current Senate bill, would help secure public ownership of associated facilities, and secure public control of these facilities would greatly improve the reliability of the ferry service and the Federal-aid system of highways.

I thank you again for the opportunity to bring these issues to your attention, and I am open to answering any questions you may have.

[Mr. Godar's prepared statement follows:]

**Prepared Statement of Kyle Godar, County Engineer, Calhoun County,  
Illinois**

Chairman DeFazio, Ranking Member Graves, Chair Norton, and Ranking Member Davis:

I would like to thank you for the opportunity to testify before the subcommittee. I am honored to represent my community, the surrounding region and similar communities across the Country as the Committee Examines the Vital Role Ferries play in not only Improving Mobility but also providing access to essential services for many communities similar to my own.

My name is Kyle Godar and I am the County Engineer for Calhoun County, Illinois. As the County Engineer I manage the County Highway Department as well as the County Unit Road District and oversee approximately 300 miles of roadway. Calhoun County's unique geographical location between the Mississippi River and the Illinois River at the confluence of the great rivers leaves the county nearly surrounded by water. Calhoun County lies along the Mississippi River between Alton, Illinois (part of the St. Louis Metropolitan area) and Louisiana, Missouri. With this over 80-mile section of the Mississippi River without a bridge crossing to the West and the Illinois River to the East, Calhoun County and the surrounding area is reliant on four ferry operations to provide mobility through the region.

Although Calhoun County is in very close proximity to the St. Louis Metropolitan area it remains a very rural community isolated from the urban sprawl and expansion of the Metropolitan area by the Great Rivers. Over 120 years ago Calhoun County earned the nick name the "Apple Kingdom" as much of the County was covered with orchards that supplied locally raised produce to the St. Louis area. Over 100 years later the County still embraces that name as the ferries carry many visitors from the St. Louis area across the Great Rivers to visit the many orchards and farms that provide locally grown produce to the area. The barrier between the urban and rural communities that the Great Rivers create has coincidentally provided a natural barrier which has preserved the entire areas natural resources and historical sites. The unique geographic characteristics of the area have provided the perfect setting for the 20 wildlife management areas, 18 public access areas, and over 40,000 acres of protected and enhanced wildlife habitat actively managed as part of Pere Marquette State Park, Two Rivers National Wildlife Refuge, and the Mississippi River State Fish and Wildlife Area. This all, in addition to the area encompassed by the Rivers themselves, as well as the privately owned farms, orchards, and wineries in the area. The four ferries that operate at Grafton, Golden Eagle, Brussels, and Kampsville provide the connection that allows those from the Metropolitan area to visit, enjoy, and learn about these natural resources. Due to its proximity to the Metropolitan area the Two Rivers National Wildlife Refuge earns its designation as an Urban Wildlife Refuge and as such is frequented by school bus loads of children, at times multiple school groups a day get the chance to cross the river on the ferries and come learn about the wildlife and natural resources preserved in this area. Many of the ferries across the country provide this same type of connection to national parks, historical preservation areas, and the great outdoors.

The four ferries that operate in Calhoun County and the surrounding area not only serve to support tourism and transport visitors to the area, but the majority of the passengers carried by the ferries are commuters who utilize the ferry system to drastically reduce the number of miles traveled by automobile, as those living in the rural areas make their daily commute to the Metropolitan area. The ferries also reduce the miles traveled by freight carriers. During harvest farmers in the region transport grain across the ferries to port facilities in the Metropolitan area. Without the ferries, marketing grain at these port facilities would not be an option for the area farmers. At the Golden Eagle location alone nearly 600 riders each day are commuters. By utilizing the ferry these commuters are able to change their route from a one-way, 80 mile average trip across some of the most congested routes in the Metro area to a 30 mile average trip across some of the least traveled routes in the area. As such, these ferries greatly reduce congestion and the miles traveled by these commuters. Based on the numbers provided above the Golden Eagle Ferry

operation results in an annual reduction of nearly 8,000,000 miles traveled by commuters alone.

Although the topic of this hearing is “Mobility,” the important role that of the Nation’s ferry system plays as it relates to life, health, and safety needs to be understood. Access to health care is an intrinsic need that is only accessible to some by way of ferry. The residents of Calhoun County, Illinois, being a medically underserved area, are reliant on the ferry system to access basic health care. Without the Golden Eagle Ferry in operation, for example, the distance traveled to receive basic health care at times could be increased by 50 miles. When these ferries are not in operation during emergent situations, essential services such as ambulatory evacuation are only available by helicopter air transport. The absence of reliable ferry service could deny many residents basic life needs and access to food. This happens during times of major flooding such as during the spring and summer of 2019. During that time many residents simply had to relocate and move to temporary housing outside of the area.

The Ferry Boat Program (FBP) authorized under Title 23, United States Code (U.S.C.), Sections 129(c) and 147 has provided a funding source that provides assistance to many of these ferry boat operations. All four of the Ferries servicing Calhoun County have had funding made available for allocation through the Ferry Boat Program. Unfortunately, guidance provided by FHWA and some of the eligibility requirements associated with the FBP funds has rendered Calhoun County unable to use the funds as needed. The ownership characteristics of these ferry operations vary widely as most of the ferry operation in our area began as privately owned operations in the 1800s or earlier. As the importance of these ferry operations has become ever more apparent, they have slowly, in different ways, become publicly controlled. Given this relationship between public owners and private operators there are needs that the ferry operations rely on that are determined ineligible. At the Golden Eagle Ferry location for instance, it has been determined that acquisition and improvement to the access road that connects the Ferry terminal to the nearest federal-aid-route is not eligible for funding. This roadway has been maintained by the ferry operator to service the ferry terminal and is public by prescriptive rights only, as no federal fund or other locally collected tax funds have been used in the past to improve the road. The maintenance on this road has been performed by our Highway Department and paid for out of the tolls collected by the ferry operator with Calhoun County controlling the toll rates. At this time improvements to the road could potentially keep this ferry in operation for an additional 60 days per year on average as protections for minor flooding could be provided.

The ineligibility of “Approach Roadways” for FBP funds is understandable as other funds could be used on the public roadways once they have been acquired and built by the local highway authorities. However, in this situation the FBP funds are needed to acquire the necessary right of way to construct the “Approach Roadway” that could then be added to the Federal-Aid-System of highways for which it is currently not a part of. Once acquired, constructed, and made part of the federal aid system, then it would be understood that it would qualify for other funds and the FBP funds would no longer be eligible. It is my belief that the first acquisition and construction of public access roadways to these ferry terminals should qualify to get these sections of “Approach Roadway” initially 44 added to the Federal-Aid-System of highways.

Additionally, other local ferry operations have had maintenance to major components of their publicly owned vessels determined ineligible. Maintenance on many of these vessels required to meet United States Coast Guard (USCG) requirements can be very costly and involve nearly reconstructing portions of the barges and push boats. This along with the very high cost associated with dry docking facilities has made it apparent that some operations need these funds for maintenance of their vessels.

Given the wide range of ferry service characteristics and ownership structures that exist, a one size fits all approach to ferry boat funding guidance has resulted in many ferry services allowing allotted funds to expire, ours included. Eliminating some of these eligibility issues, especially when associated with one-time discretionary funds that could help to secure public ownership of associated facilities, and secure public control of these facilities would greatly improve the reliability of ferry services and the Federal-Aid-System of Highways.

● SEPTEMBER 9-2021

# GRAFTON FERRY



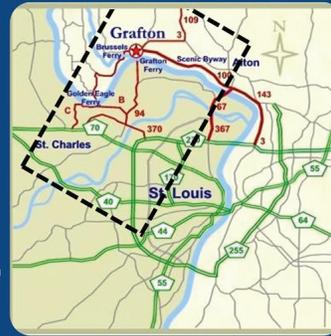
● The Great Rivers and Routes region is the only place in America where the Mother Road of Route 66 meets the Great River Road. The region celebrates three of the nation's great rivers (the Mississippi, Missouri and Illinois) alongside famous roads, history and small town charm.

02 Return to a time of simplicity and American values along the Meeting of the Great Rivers National Scenic Byway where the Mighty Mississippi, Missouri, and Illinois Rivers converge. The 33-mile Meeting of the Great Rivers Byway begins in Hartford. The byway winds west and north via Illinois Routes 3, 143 and 100. Illinois Route 100 leads you through Alton and bends along the forested river bluffs, approximately 25 miles, to its ending point in Grafton at Pere Marquette State Park.



## 03 Ferries in the Region

The Grafton, Golden Eagle & Brussels Ferries connect Southwest Illinois to Northwest Missouri from I-70 and I-270 East-West Corridors, bringing thousands of visitors and spending into the National Scenic Byway region of Illinois.



## 04 Grafton Ferry

The Grafton Ferry is located on the Illinois side at the foot of Illinois Route 3, just upriver of the Grafton public boat ramp.

On the Missouri side, the Ferry terminates just off of Grafton Ferry Road alongside the St. Charles County Airport. From there, it is a short ride to Highway 94 and 10 miles to City of St. Charles.



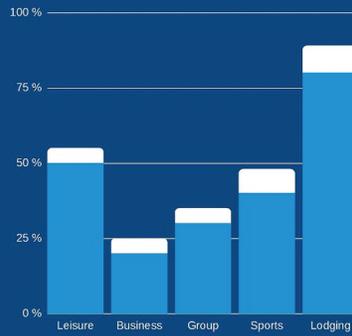
## Travel today

05 We continue to see a strong leisure demand to the region up more than 50% YOY. Outdoor recreation and nature-based tourism continues to be the driving factor.

Consumers staying closer to home, taking a road trip with family & friends.

Midweek travel has seen an increase YOY.

The Byway Region is an all season destination.



## the Power of Travel in Southwest Illinois

06

2017

\$540 Million in visitor spending

\$15 Million in local & state tax revenues generated

2018

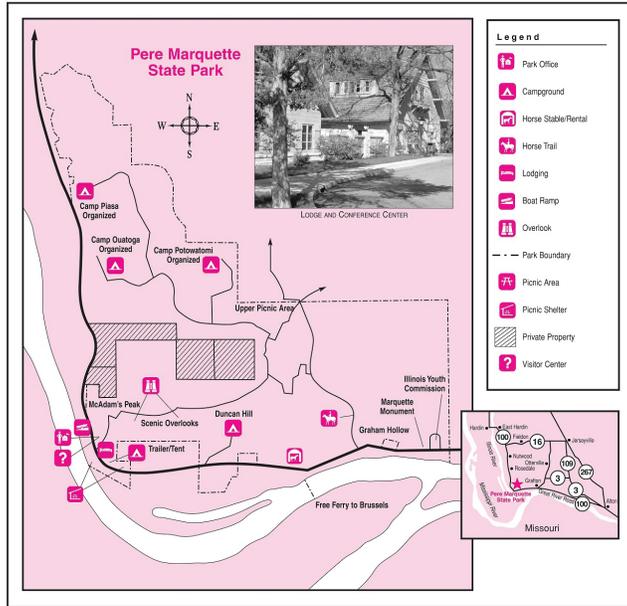
\$580 Million in visitor spending

\$17 Million in local & state tax revenues generated

2019

\$690 Million in visitor spending

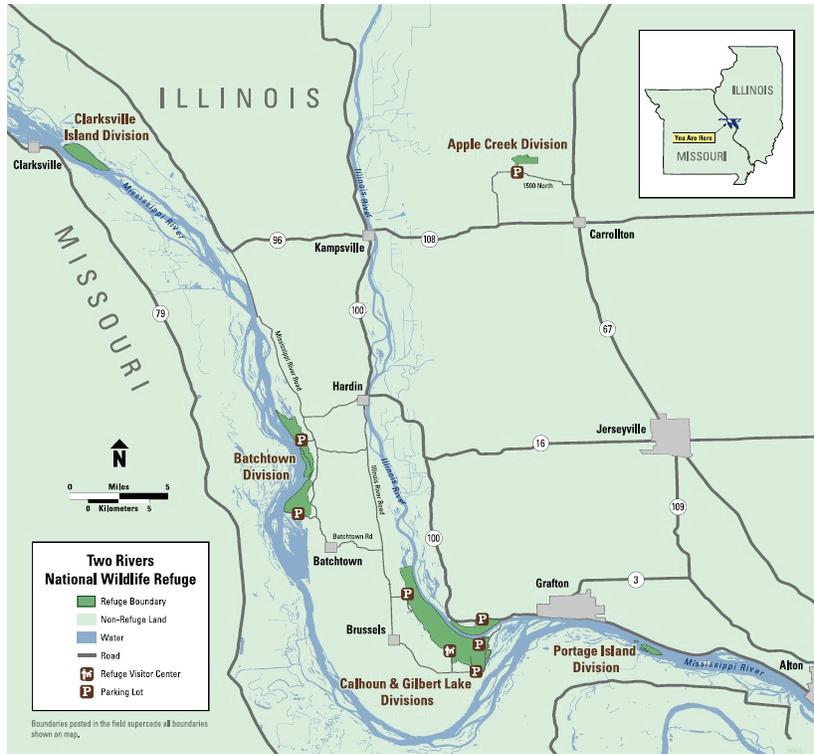
\$21 Million in local & state tax revenues generated

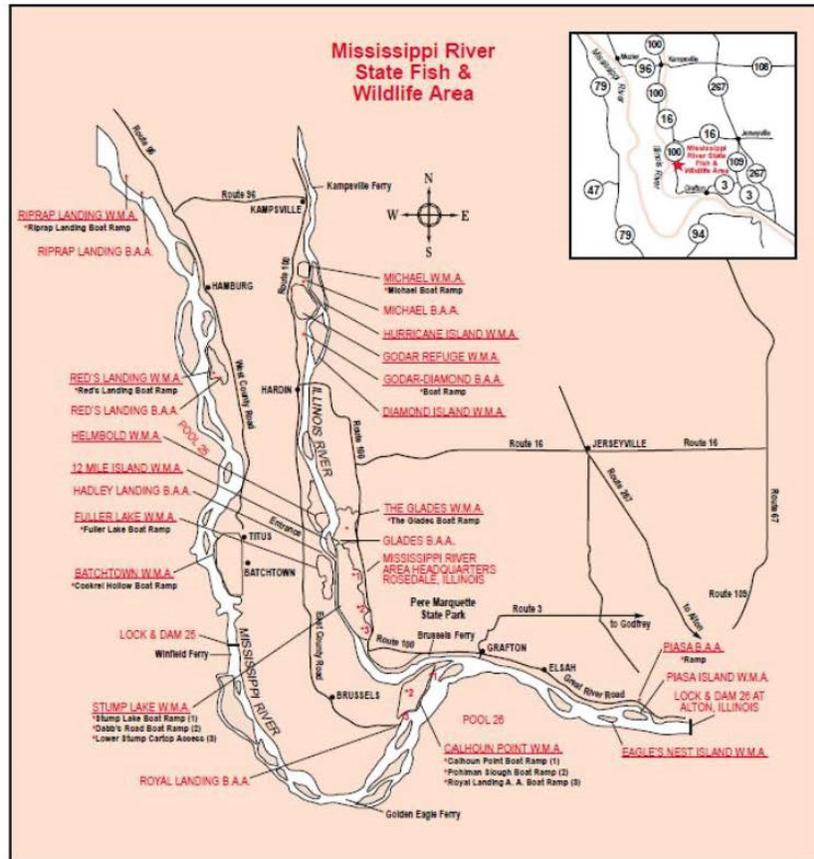




# Two Rivers National Wildlife Refuge

*Refuge Map*





Ms. NORTON. Thank you very much, Mr. Godar.

We will now move to Member questions. Each Member will be recognized for 5 minutes, and I will start by asking my own questions.

Mr. Principi, your testimony noted challenges in this very region, the national capital region, with drivers spending 100 hours more each year stuck in traffic.

Now, we are fortunate in the DC metropolitan region to have waterways. Not every region has such waterways. Can you provide more detail on the level of ridership you anticipate the M-495 ferry system could serve, and what the corresponding impact on traffic congestion might be?

Mr. PRINCIPI. Yes. Thank you, Madam Chair. As I said in the testimony, we would expect, at startup, to be able to carry about 10,000 daily passengers, which would equate to a little over 3 million passengers annually, and be able to grow from there.

The network—you know, it is amazing. This region has so many military bases on those river systems. We have so many transit-oriented developments on those regions that the sky is the limit, with

the ability to be able to use our last unused blue highways to accommodate the—and vis-a-vis traffic congestion, I don't think we will ever get to pandemic levels on the interstates. I think we are going to go back to what it was before in large measure.

But congestion, it would, in effect, be able to slow down the large amount of money being invested in roads and other transit systems, because I believe very strongly that investments in ferry service is much more efficient than perhaps bus or even commuter rail.

Ms. NORTON. Yes, I anticipate when people know that they can get on a boat and get here just as fast, that you will find those alternatives increasingly thriving.

Mr. Principi, one of our goals here, in the District of Columbia, is to invest in and revitalize our waterfront communities. We are very fortunate to have one of my bills that passed, the Southwest Waterfront, another the Southeast Waterfront. So we are already revitalizing our waterfronts.

Mr. Principi, how would the M-495 ferry service help our region build a thriving and accessible waterfront community?

Mr. PRINCIPI. Well, by definition, successful waterfront communities require transit, that it be transit-oriented development. And while there may be bus service and perhaps rail in a few areas in those centers, all of them are connected by our three rivers. And so, being able to move individuals—either it be commuters or tourists—between and among those transit-oriented developments would be huge, from an economic development standpoint, here in our region, not only on jobs, but on tax revenue for Government and, in fact, quality of life issues for the riders.

There is nothing better than to be sitting in a reclining leather seat with a beautiful, stress-free view of the waterway system, as my colleagues are able to accomplish. We would like to do that here, in the national capital region, as well.

Ms. NORTON. Thank you.

Ms. Rubstello, your testimony highlights the workforce challenges the Washington State ferry system faces, with a staggering number of your highly skilled employees eligible for retirement. In the INVEST in America Act, the committee dedicated significant resources to ensure transit workers will be well trained to keep up with that changing sector. Are there Federal resources you can draw upon, as you tackle your workforce needs?

Ms. RUBSTELLO. Well, we are currently already using those resources that we have. Part of the challenge is attracting new talent, and then being able to train them quickly enough to get them onto the vessels and part of the operations team. So it is really about bringing that attraction, that these are good-paying wages, good family-wage jobs. And then, of course, our service. So we are utilizing everything that we already have.

Ms. NORTON. Well, that is very pleasing to note, and I thank you.

And now I ask my good friend, the ranking member, for his questions.

Mr. DAVIS. Thank you again, Madam Chair, and thank you again to the witnesses. Great to hear your opening testimony. I want to start with my witness, Mr. Godar.

We have heard a lot today about the need for increased funding, but you have an issue where you actually don't need any more funding. You just need Government to do their job and to be able to use the Federal funds you have for a specific purpose. Can you explain in more detail the project you are attempting to complete, and would complete, if it weren't for pushback from the Federal Government?

Mr. GODAR. Yes, and I don't know that we would turn down extra funding, as we would appreciate that. But if you give me funding I can't use, it doesn't help.

So in this situation, our local ferry operation at Golden Eagle started out, like many, as a private operation, how most of these river ferries in our area began. And over time, these ferries have either been replaced by bridges, or in strategic locations, have slowly been modified from private ownership to public ownership, or a combination public-private partnership, which is the case in this situation.

At this location in, I think, 1969, IDOT eminent-domained the terminal on the Illinois side, as there were some conflicts with property owners there and bestowed the power of managing the ferry onto the county. No such issue has ever taken place on the Missouri side of the Mississippi, and the terminal is on U.S. Army Corps of Engineers land. And there is a gap from there to the next closest Federal-aid route that is managed by MODOT. And our ferry operator still owns a small piece of property and the roadway that connects the two.

And, given the ferry boat funds, we were hoping to improve that section of road, which is in dire need of it, but have been told that it does not qualify, because it is not in the system.

Mr. DAVIS. Can you give us a brief example of some of the benefits that it would bring if this project were to be completed, that would come to Calhoun County and southwestern Illinois?

Mr. GODAR. Yes. So improvement to this road, and it is—it would be a simple fix to improve the road, and raise a section of it from 2 feet to 6 inches [sic]. That would offer an additional 60 days of operating time on average, per year, where the road is inundated by floodwaters. Route B is still open, we just cannot make the connection. That closes this ferry operation down, which reduces traffic, increases congestion.

The ferry company has repowered two of their tugs with lower emission engines through CMAQ funds in the past. I think they would be greatly interested in looking into purchasing new tugs they need to right now that they don't have the funding to purchase. But with electrification and these other changes, I think that they would be interested in pursuing that.

But here, with this smaller operation, we are lacking the funds to match those type of Federal investments. So I think at our smaller operations like that, they are going to need additional support just to be able to do those things, even if allotted Federal funds, because of a lack of matching funds.

And back to the road issue, I think I need to have FHWA, IDOT, and MODOT come together and provide Calhoun County with a funding source that will allow us to utilize—to acquire what needs

to be a public right-of-way to solidify this very important ferry connection.

And I think that wraps up most of our issues we are having.

Mr. DAVIS. Great, thank you. And I would be interested in hearing from any of the other witnesses at some point if you have any permitting issues, with how long permitting takes.

But I do want to briefly say something to Ms. Rubstello.

Ms. Rubstello, you mentioned workforce. You may not be aware—a lot of folks aren't aware—as part of the CARES Act, Congress actually passed a provision that allows employers to pay down student debt, just like they were able to do with a tax—with a \$5,250 limit for the employee not to have to pay taxes on during—that is the same thing that exists with tuition reimbursement. Employers can now pay down student debt up to that level, tax free, for their employees or future employees. It is a great recruitment, great retention tool.

I would urge—and you don't have to fill out a grant program to get the money. It is utilizing our tax code to help encourage employers to attack the student loan debt problem in this country, and a voluntary, private-sector approach. So I would urge you to reach out to our office. We will get you the information on it. I think it can really help address some of the workforce issues right now in your industry.

And I yield back, Madam Chair.

Ms. NORTON. Well, I thank the ranking member for his questions, and I now recognize Mr. Sires for 5 minutes.

Mr. Sires, you are recognized.

Mr. SIRES. Well, thank you very much for holding this hearing.

My district, being one of the most congested districts in the country, being so close to New York, having the Hudson River, we have a number of ferry stations. And quite frankly, if it wasn't for the assistance of the Federal Government, we would be even more congested.

We have tied the ferry ports to our light rail, where the light rail brings people to the ferry, and the ferry goes into New York, obviously. It only takes about 7 minutes to get across the river, but people save quite a bit of time.

But the most important part is that you have all those cars taken off the road. Between the light rail and the ferry, there are a number of cars that are taken off the road every single day.

The other part that helps with the ferry is, when 9/11 happened, the only people that could get out of New York, because everything else was closed, was through the ferry. Every time there is an emergency, the ferries are there to assist. If you remember when Captain Sully landed on the Hudson River, the first people who were there to assist in that accident was the ferry system. So that is another plus for the ferries in areas—hopefully, that you won't need them. And 9/11, obviously, they were ferrying people out of New York into New Jersey.

But we have just about every single mode of transportation you can think of in my district, from ferry to light rail to cars, tunnels, bridges, you name it. But the ferry has been a very, very successful endeavor here in this district.

My question is what else can we do to improve ferry systems in other areas of the country, or in my area, also? To anyone that wants to answer that question.

[Pause.]

Ms. NORTON. I think the question is addressed to any member on the panel.

Mr. SIREs. Can you hear me?

Mr. MURPHY. Thank you, Congressman, I can tackle that one.

I think that it is essential that we look at increasing funding. The ferry, as a travel mode, doesn't necessarily get the appreciation that it deserves. Mr. Principi pointed out that it can oftentimes be a much more efficient investment in terms of moving people, reducing congestion, addressing emissions, than some other modes. So I think that it is worth exploring, increasing funding opportunities.

I also want to respond to the question about permitting issues. I think there are opportunities that we can look at to streamline permitting for projects and their expansion opportunities that all of us are looking at. There is a sequential approach to permitting between agencies these days, instead of an approach that lets different regulatory agencies look at permits at the same time. That would really speed things up. We know time is money, and so that is another area that I think could be improved, probably not just for ferries, but infrastructure generally.

Mr. SIREs. Just like—because of the development that we have on the New Jersey side of the river, more and more people are coming from New York who live in New Jersey, and take the ferry into New York, which is, compared to all the other modes of transportation, it really saves a great deal of time for these people, because they could be home in half an hour, and that is unheard of in this area. Anybody who has ridden the New Jersey Turnpike and gone on the Lincoln Tunnel or the Holland Tunnel would know. We have the tunnels, obviously.

So I am all for trying to help not just my area, but other areas, because I have seen the success of the ferry that it has brought to this area. So let's keep funding, let's keep improving, because it is not only clean, it is an alternate way, other than cost, the cost of the road, all those good things that ferries provide.

For many years, there was a lot of ferry activity here, and then it died off. But since all the development has happened, people are more and more interested in having ferries in their own towns, which takes them right into New York City. That is where the jobs are in this part of the State.

Thank you. I don't have any further questions.

Mr. PRINCIPI. Congressman, Congressman, let me just briefly respond to your question.

We sympathize. Our commuters here sympathize with the commuters in New York and New Jersey. We have very much the same type of traffic congestion as you do. And my hat is off to the committee for the passage of H.R. 2.

H.R. 2 would have done great things for our ferry system here, in the national capital region, including an increased amount of funding opportunities and the ability to utilize some of that funding for operational purposes.

The large drawback to the launch of ferry service, I believe, in this country is the inability to secure or guarantee an operating subsidy for, say, labor and fuel: the two largest expenses. And so, without the ability to have an operating subsidy, it is difficult to attract the private sector to make that initial risk and take that initial responsibility of being able to start service.

And then the other provision that we really liked in H.R. 2 was the projects of national and regional significance, a separate pot of money for regional transportation systems that would benefit both of our areas.

Ms. NORTON. Thank you very much. The next question will be from Mr. LaMalfa.

You are recognized for 5 minutes, Mr. LaMalfa.

Mr. LAMALFA. Thank you, Madam Chair. I appreciate the hearing here.

We don't have a great amount of ferry activity in my district here, although I see my colleague, Mr. Garamendi—maybe we could reach an agreement on getting that one at Princeton to get service going between Butte and Colusa County going again. That helps save a lot of mileage for our farmers moving their machinery, as well as just a general commute, you would say, in that area. It was pretty handy back in the day, so we understand the need, the importance.

And I wanted to direct some questions towards Mr. Murphy on the bay area, where—that is fairly proximate to our area.

And what you are looking at, you know, we have used some of that service in the past, as a tourist, mostly, in the area. So when you talk about—there is ridership currently on the system. It is about 40 percent of pre-COVID, and seeking to restore service. How long do you think—that is probably pretty unpredictable, but to get back to 100 percent service?

And also parallel that with what do you see, what do you know on bridge traffic for automobiles? What is the level of traffic for automobiles versus the—in—you know, in bouncing back from the COVID era? Has it responded much more so than ferry service at a higher number than 40 percent?

Mr. MURPHY. Yes, thank you, Congressman. It is a good question.

We are seeing ridership levels at about 40 percent now. That is ahead of where we projected to be right now, even with the Delta variant impacts, which have had a significant impact on travel, generally, in the bay area. We think that we can get to 50 percent. That is what we budgeted for the current fiscal year, 50 percent of pre-COVID ridership by the end of June 2022. Our goal is to get back to somewhere in the area of 75 percent by the end of fiscal year 2023. So we are looking at a 2- or 3-year recovery cycle before we can get back to 100 percent.

There are still—job and population growth is happening in the bay area—

Mr. LAMALFA. Let me jump in, I am sorry, as time is limited here.

Mr. MURPHY. Yes.

Mr. LAMALFA. What do you see—do you have numbers for what bridge traffic is for automobiles?

Mr. MURPHY. They are back to pre-COVID levels. They are not focused on the commute period, necessarily. They are spread out more across the day, which is what we are seeing on transit service, as well. Off-peak service is more resilient than it was pre-COVID. But bridge traffic is back to 100 percent of pre-COVID levels.

Mr. LAMALFA. What do you think the barrier is between people—you know, it is not a lot of fun to go across the bridges during peak traffic there. Why isn't the ferry bouncing back more quickly? Why isn't it already at, say, 75 percent? Not pointing fingers at you, but just in general, why are not users jumping at that opportunity to have a shorter distance or a straighter travel?

Mr. MURPHY. Yes, I think it is hard to say. But because the traffic is spread out over the day, we are not seeing the peak congestion time constraints, the travel times that we saw previously in the—that were focused on the peak period. We know those are coming, but it is going to take downtown San Francisco largely reopening office-based jobs and employers that are welcoming those commuters back to the office, which is looking like a January timeframe for the bay area.

Mr. LAMALFA. Oh, OK. That will be tough. All right.

So talk about the retrofiting. Are we talking about brandnew boats, or are we talking about refitting current boats with the different propulsion system when you are talking about going to—I guess is it diesel engines to zero-emission electric?

Are you utilizing—do you see them utilizing the current craft, or as a brandnew craft?

Mr. MURPHY. We are looking at doing both. We are looking at buying some smaller vessels that are battery-electric, that would be able to operate some of our shorter routes, and we are looking at repowering our existing diesel vessels to be able to use zero-emissions battery-electric technology.

Mr. LAMALFA. What do you think would be a projected cost on an average, full-sized diesel retrofit?

And then how is that going to reflect in the price of the ticket, let's say?

Mr. MURPHY. We are assessing that now. We—there are some options for doing that. I can get back to you with more detail on the cost ranges for the retrofits.

Our goal is to have it not affect the cost of a ticket at all. We would like to be able to use our local and regional matching funds to leverage Federal programs that would be sufficient to be able to accommodate those costs, and not have that trickle down to our fares at all.

Mr. LAMALFA. Well, that would be a taxpayer expense, then, unless somehow it was paying for itself.

Is this a mandate, or is this something that you seek as a goal in order to, you know, better public relations?

Mr. MURPHY. There is a mandate in California to reduce greenhouse gas emissions for commercial harbor craft. We are subject to that. There are a few ways to go about it. It doesn't require zero-emission technology for any routes that are longer than 3 miles. Routes less than 3 miles are required to be zero emission. We are

doing a little bit more on the zero-emissions side than what would be required by that regulation.

Mr. LAMALFA. OK. Well, hopefully, the one over to Oracle Park from across the bay is in that category of not having to retrofit, because I would like to go over there and root for the Giants against the hated southern California franchise.

Anyway, so thank you.

Mr. MURPHY. Thank you.

Ms. NORTON. Thank you, Mr. LaMalfa.

Mr. Huffman, you are recognized for 5 minutes.

Mr. HUFFMAN. Madam Chair, thanks for this important hearing, which comes, obviously, on the eve of the House potentially taking a vote this week on the Senate's infrastructure bill.

As Chairman DeFazio has said, this bill was not written the right way. It came together in a back room, written by a dozen fossil-fuel Senators, and it has the oil industry's fingerprints all over it. Critical investments in tackling carbon emissions in the transportation sector were gutted from the House's INVEST Act.

And unfortunately, even when this bill tries to do something right, the Senate bill manages to get it wrong. So they included \$1.2 billion for public ferries. But the bill dedicates \$1 billion of that to rural ferry services, excluding the rapidly growing ferry systems in California and other places. In fact, the FTA estimates that only four ferry services in the entire country would be eligible for the funding under this bill, as it is currently written.

But what came out of that backroom Senate deal is apparently sacred and unchangeable. We are told that we just have to live with what is in it, including the errors. There was a last-minute attempt to correct an error, increasing funding by \$1.25 billion for the passenger ferry program. But the bill was rushed through without it, and here we are this week voting on a bill that not only includes giveaways to the fossil fuel industry, that not only underfunds critical climate priorities, but also just has errors and mistakes in it that we are told we cannot fix.

And because of the double dipping promise that was made without any of us being party to it, it was impossible, unfortunately, even for this committee's reconciliation package to address the inequity in ferry funding.

So, Mr. Murphy, I want to ask you about this. The Senate bill does increase funding nominally for the ferry formula program by about \$30 million out-years. How much does this actually increase funding for WETA?

Mr. MURPHY. Yes, it is not much, Congressman. Thank you for the question. Thank you for your support of our system, historically, as well.

But it is less than \$1 million a year from that FHWA program. So the increase—

Mr. HUFFMAN. And remind me, how much does a new ferry boat cost you?

Mr. MURPHY. A new ferry boat is expensive. A small ferry boat is in the neighborhood of \$4.3 million. The large ferry boats that we operate, our 400-passenger, those are upwards of \$25 million.

Mr. HUFFMAN. Right. My understanding is that 35 percent of the allocation formula on this program is based on the number of vehi-

cles carried by each ferry, the result being that funding is not as focused on helping remove vehicles from congested areas, as that is what our bay area ferries actually do, but actually has a discriminatory effect on ferries like ours that move people, rather than vehicles. Is that fair to say, Mr. Murphy?

Mr. MURPHY. That is correct. It is tough to make it easier to move cars on a boat in the bay area. We are more interested in moving people, and this program is focused on ferry vessels that move cars over longer distances.

Mr. HUFFMAN. And unlike the ferries in the bay area and other metropolitan areas, ferry service in Alaska, though, will do very well under this backroom deal that came out of the Senate. They will get an additional \$12 million annually under the Senate bill, because they cover very long distances, and they move cars. And that is the way the deal was cooked.

So, I tell you, I want to see support for rural communities. I want to see support for ferry service in rural communities, but not at the expense of major successful metropolitan area ferry programs like the one we have in the bay area.

In fact, I look at this windfall to Alaska, and I see it on top of the new LNG facility that Senator Murkowski has achieved for herself, with a \$25 billion tax credit. And it sure looks like—you know, they have said they are getting rid of earmarks, but this sure feels like a pretty generous earmark, at least a windfall, and we just shouldn't be doing that at the expense of urban communities, in my opinion.

Ms. Rubstello, I want to ask you about your efforts to electrify, or to go to hybrid-electric and full-electric vessels. What impact would the availability of those FTA urban ferry funds have on your system's ability to purchase these cleaner vessels, and refurbish your fleet?

Ms. RUBSTELLO. Well, we take full advantage of it. You know, as I mentioned, we have a convergence plan, so three existing boats that we want to convert. So we would utilize to the greatest extent possible on that, and then look at our shoreside infrastructure. That is a huge component to get the full benefit of going electric. And so we would focus a lot of the funding in that area, as well.

Mr. HUFFMAN. Great. We have just got to make sure the formula makes those funds available to you, and we have got some work to do to get that fixed.

So with that I yield back. Thank you very much, Madam Chair.

Ms. NORTON. Thank you very much, Mr. Huffman. I am pleased to recognize now Mr. Burchett for 5 minutes.

Mr. BURCHETT. Thank you, Chairlady. And I am—I guess, technically, I am the ranking member right now, so your side has had adequate leadership. Ours has been woefully underserved up to this point, especially since my buddy, Rodney Davis, was sitting up here.

But Mr. Murphy, prior to the pandemic, 60 percent of WETA's operating costs were covered by fares. What percent of funding was provided by the State and local governments, and what percent came from Federal sources?

Mr. MURPHY. Our operating budget, the remaining subsidy, was provided largely by bridge tolls collected in the bay area.

Mr. BURCHETT. OK, thank you.

And this is for anybody and everybody, I guess. Do you have any suggestions for boosting the ridership, and making ferry systems more financially independent?

[Pause.]

Mr. BURCHETT. This is a chance——

Mr. PRINCIPI. Well, Congressman, I will——

Mr. BURCHETT. Go ahead.

Mr. PRINCIPI [continuing]. Jump in on that. The stakeholder group has conducted a number of technical studies, including a market analysis here in this region, and we concluded that the two most important issues for a rider is time and cost. And to the extent that a trip takes longer than, say, a single-occupancy vehicle or another mode of transit, they are not going to select the ferry service as their way into work.

And then cost, passenger ticket cost. While we have a very high, high cost of living here in the region, prospective passengers would be unwilling to pay a ticket cost if it were costing more than their individual trip, which, in Washington, DC, requires another \$20 or \$25 on top of the cost in order to park.

Mr. BURCHETT. OK——

Ms. RUBSTELLO. So I would like to add on to that. I agree, the concern about increasing the cost to the point where somebody doesn't want to take the ferry is of concern.

But the other thing, what we have been able to do in the urban area, is be able to connect the transit system to our ferry system, so people have that as an option. In the rural areas we struggle on that. And so having more support on funding those first-mile/last-mile connections, I think, will really help increase that walk-on passenger capacity.

Mr. BURCHETT. Anyone else?

Ms. NORTON. Mr. Burchett, she said funding first—funding the two systems. I didn't understand how they do that.

Mr. BURCHETT. OK, ma'am, could you——

Ms. NORTON. Connecting the two systems.

Mr. BURCHETT. Could you explain that to us?

Ms. RUBSTELLO. Sure. You know, in the urban area, where we have transit systems that are already there, easy connections. So we have created, essentially, transit hubs at some of our terminal locations, so someone can walk off our ferry and hop right on to a bus, or a commuter rail.

In the more rural areas, having that infrastructure is the only way you are going to increase the ridership on the vessels, on the ferries for walk-on passengers, is having that transit component available to the user.

Mr. BURCHETT. Does that make sense to you, Chairlady?

Ms. NORTON. Yes.

Mr. BURCHETT. All right.

Ms. NORTON. Yes. With no new fare? But that is a—but then they pay a new fare to get onto the new—to another system.

Ms. RUBSTELLO. That is true. However, in our region we have a one-payment system, so it makes it very streamlined and easy for a passenger to go from one system to the next.

Mr. BURCHETT. Are we good?

Ms. NORTON. Yes.

Mr. BURCHETT. All right. Well, thank you all very much. And where I live in east Tennessee, to be honest with you, the only ferries that are there are just historic markers. Most of them were sunk a little bit after the Civil War, or during the Civil War. So it is—this has been very educational to me.

So thank you, Chairlady.

Ms. NORTON. Do you have waterways?

Mr. BURCHETT. Oh, TVA, we have got them all over. It is just that we just don't have a lot of ferries there. There is a lot of roads named after them, and they just end at the lake, usually, oddly enough, and they pick up on the other side. So that is kind of—that is the history of it. But thank you, Chairlady.

Ms. NORTON. Thank you very much, Mr. Burchett. I now recognize Mr. Garamendi for 5 minutes.

Mr. Garamendi, you are recognized.

Mr. GARAMENDI. Thank you, Madam Chair. Mr. Huffman covered much of what I wanted to discuss. But I want to carry it a little bit further, and particularly talk to Mr. Murphy about the bay area.

The WETA program in the bay area is part of, but not all of, the ferry system. There are also private ferries operating in the bay area. Mr. Murphy, could you discuss their role in providing the transportation needs of the area?

Mr. MURPHY. Sure. Yes, there are a number of private operators. WETA uses one of those operators as our contract operator, Blue and Gold Fleet. There are some other operators providing service to employers who contract for that service to connect their employees, specifically—not a public ferry system, but connect their employees to their campuses. They also provide some charter service throughout the bay area, when needed.

We have been looking for opportunities to partner with those private operators and explore ways that we can utilize the infrastructure that they have to be able to pilot different services that are public. We are in the middle of developing those plans now.

Mr. GARAMENDI. Very good. We have also had—so as we proceed with legislation to correct the problems that the Senate has given America with their bipartisan infrastructure plan, we should keep in mind the role of private ferries throughout this.

There is also something that will come up, I believe, in the Coast Guard reauthorization having to do with the financing authority. This is the Capital Construction Fund for ferries. Presently, it only applies to ferries that carry cars or other kinds of cargo. It does not speak to passenger ferries alone, so we need to correct that over in the Coast Guard reauthorization.

The other issues, Mr. Murphy, we discussed this, but I don't think thoroughly, and that has to do with the transition from fossil fuel power to other kinds of power. We discussed this a little. What do you need in Federal law to complete that, keeping in mind that we had tried to do that in the House INVEST Act?

And Mr. Murphy might want to do that, and also Ms. Rubstello.

Mr. MURPHY. Yes, thank you, Congressman, and I appreciate your support for making our ferry system cleaner in the bay area. We are looking to do that, to convert a large portion of our system

to battery-electric technology. There may be opportunities down the road to use hydrogen technology. That is something we are exploring, as well.

The thing we need is—two things. One is we need robust Federal funding to support the costs associated with making that transition to match our local and regional and State sources which do exist. And the other thing that we need is we need the industry to continue to innovate in that area, to compete with diesel technology and the travel times, the trip links that can be accommodated by diesel fuel. Battery-electric and hydrogen technology just needs to continue to advance.

Mr. GARAMENDI. OK. So specifically, we need—you will need Federal support to achieve that transition.

Just a quick point. We often talk about subsidies here. Let's keep in mind that the entire highway system for automobiles and trucks is very heavily subsidized along the way.

Now, with regard to the question of the Federal formula for public ferry service, how does the current formula disadvantage public ferry services in the bay area? And perhaps we have covered part of that with the passenger ferries being discriminated against with car ferries.

So Ms. Rubstello, if you would like to, chime in on both of these questions, the former one as well as the current one.

Ms. RUBSTELLO. Yes, thank you for that. I just echo what Mr. Murphy mentioned. I mean, certainly having additional Federal support for the ferry system is necessary, as well as the innovation on technology, and not just on our vessels themselves, but also that shoreside power source. It is important to have those be as cost effective and innovative, as well.

And I apologize, I forgot your second question.

Mr. GARAMENDI. That is OK, you basically covered it. And we are going to run out of time in a few seconds.

Ms. RUBSTELLO. OK.

Mr. GARAMENDI. The other thing is in the INVEST Act we purposely connected all transportation programs, whether it be a truck terminal or a ferry terminal to the land base and to other transportation systems.

I would note that that is not in the Senate bill. It is something we are going to have to continue to work with, so that we make sure that there is the connectivity which several of you have discussed.

With that my time is expired, and I yield back.

Ms. NORTON. Thank you, Mr. Garamendi. I will call on next Ms. Bourdeaux.

Ms. Bourdeaux, you are recognized for 5 minutes.

Ms. BOURDEAUX. Madam—I yield back my—I did not—I did not prepare 5 minutes of talking points. Great to be here. I appreciate the chance to be a part of this hearing.

Ms. NORTON. Thank you, Ms. Bourdeaux.

Ms. BOURDEAUX. I yield back, thank you.

Ms. NORTON. Mr. Moulton—wait a minute.

Mr. Carbajal, you are recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Madam Chair. My question is for Mr. Murphy.

The transportation sector is one of the largest emitters of harmful greenhouse gas emissions. In 2019, 29 percent from modes of transportation. Can you discuss the benefits of transitioning to zero emissions?

Mr. MURPHY. Sure. Yes, it is critical to our climate goals. Transportation, as an industry, is responsible, as you say, for a large portion of greenhouse gas emissions. We have to keep trying to make it cleaner. That has been one of the criticisms of water transit service in the past, is that the missions are a challenge to be able to address.

There are ways to clean up diesel fuel. We are the first passenger ferry agency to install Tier 4 engines, which, on our system, reduces 10 tons of greenhouse gas emissions every year. So there are improvements to make in that area. But ultimately, we need to look at moving to zero-emissions technology to make sure that our climate goals could be achieved.

Mr. CARBAJAL. Mr. Murphy, how can Congress better support programs that move us towards a cleaner future?

Mr. MURPHY. Yes, thank you. I think one of the things we have talked about here is the inequities of the FHWA program, and the way that it addresses the funding needs for some ferry systems, but not others. If you are a passenger ferry-based system like WETA, that doesn't carry cars and operates over some relatively short routes, still long enough to be able to accomplish some dramatic greenhouse gas reduction goals, but not as long as what is rewarded by the FHWA program, we need to look to the FTA program.

The FTA program is focused on funding systems like ours, that meet our characteristics, that operate in urban areas over short distances, carry passengers, and we just need to increase funding for that program to make sure that resources are available.

We were happy that a technical corrections amendment was ready to go in the Senate. We know we couldn't get it done in reconciliation. And so there are other avenues that we are hoping the committee can explore to make sure that we add that funding back in.

Mr. CARBAJAL. Thank you.

Ms. Rubstello, as we look towards decarbonizing our future, and begin to tackle the climate crisis, we often focus on transitioning our fleets towards zero emissions. However, charging stations and infrastructure are also needed to fulfill our visions towards lowering our carbon footprint.

Can you discuss your plans further for terminal-charging infrastructure, and how Congress can help support these efforts?

Ms. RUBSTELLO. Yes, thank you for that question. Yes, the shore-side power is very vital to ensuring that we get the most benefit out of converting our fleet to hybrid electric.

We have been working with our power suppliers in our region. We are looking at providing at 16 of our terminals the necessary infrastructure. And so being able to ensure that the Federal funding supports that is vital for us to get that full benefit of our conversion program.

Mr. CARBAJAL. Thank you.

Madam Chair, I yield back.

Ms. NORTON. Thank you, Mr. Carbajal, for your questions. I now recognize Mr. Moulton for 5 minutes.

Mr. Moulton, you are recognized.

Mr. MOULTON. Thank you, Madam Chair, and thank you to all the witnesses who are here.

My district, on the North Shore of Massachusetts, benefits from some limited ferry service, which is very popular, but we have also had an experience where we have started some ferry service on a trial basis that wasn't continued by the State. It is very much missed in the city of Lynn, for example. The city of Salem is looking to expand the ferry service it already has.

But we are very concerned about the climate implications. We also have very good commuter rail service. It is not a regional rail, but it is very popular. We are looking to electrify that. As we think about electrifying our ferries, and moving to a zero-emissions service, how do you have to adapt the service to accommodate that?

Do you have to provide for charging time at docks?

Do you have to—you know, what sort of infrastructure investments are you looking at?

How do we need to think about the changes we would have to make to the existing service to accommodate the zero-emissions vehicles?

And, I guess, actually, that is a good—sorry, I didn't direct that to anyone in particular, but I don't know if, Mr. Murphy, you would like to respond, or Ms. Rubstello, whoever would like to jump in there.

Mr. MURPHY. I can start. It is a big challenge. We are studying it right now. We have a shoreside infrastructure study that is looking at all of the technology that is available and applying different options to our system to see how we might need to adapt our services.

Our goal is not to have to adapt much at all, in terms of travel time, and scheduling, and frequency. But the reality is it might take a little longer to charge, depending on what you can afford to install at the shoreside. If you can't afford rapid-charging infrastructure, which is more expensive, then that slow trickle charge might mean that your boats are parked at the dock for a little bit longer. Sometimes they might need to charge overnight, or for a number of hours before they are ready to operate again. So that is a tradeoff, but there is technology that exists. It is more expensive, but it can rapidly charge boats at the dock during dwell time without sacrificing much in terms of schedule or frequency.

Mr. MOULTON. Mr. Murphy, just as a realistic goal, when do you think you will be able to transition to this new zero-emissions technology? Is this something that can be accomplished in the next few years, or is it realistically 10 or 15 years out?

Mr. MURPHY. We can begin to phase this technology in in the next few years. We have a State grant to buy what would be the region's first high-speed passenger all-electric vessel. That grant comes with some funding to install some shoreside infrastructure.

We have just applied for—or will be applying for—the FTA discretionary program for another couple of vessels to serve new neighborhoods on the San Francisco Bay front. They will also be all-electric. So we are starting to move in that direction.

But if the FTA program was funded at \$1.25 billion over the next 5 years, I would say we would be able to make a really significant amount of progress over that time period and get to our 50-percent conversion over that time period if those funding levels existed.

Mr. MOULTON. Assistant Secretary Rubstello, tell me how you think about balancing your funding priorities between converting existing vehicles to low emissions, or even adding frequencies on existing routes, versus starting new routes. That is something that we are trying to figure out in our community.

Ms. RUBSTELLO. Well, right now we are really focused on how we make our current routes as efficient and effective as possible. So that is where we spend our time, focused on that.

And as it relates to the conversion side, we are just so happened—at a time with our current vessels, the three that I mentioned that we are going to do a conversion on, is—it just so happens they are at their mid-life overhaul for those engines. And so it is just the right time to make that conversion happen.

Mr. MOULTON. I mentioned the city of Lynn experimented with ferry service a couple of years ago. It seemed very popular, but didn't quite have the ridership that they were hoping for. The proponents said, "Look, you just need to give it time."

What are other things that we should think about, in terms of encouraging ridership and getting people to make the switch, so that it can be proven?

Ms. RUBSTELLO. Well, I would say it is a couple of different things. One is, what are those other connections that are available to them, so that they can get to where they need to go, if your focus is for them not to be utilizing their cars.

The other thing is, what is the development around those terminal locations, and so how does that support those trips that customers are wanting to take?

Mr. MOULTON. Those are great things to think about.

Thank you, Madam Chair. I yield back.

Ms. NORTON. I thank you, Mr. Moulton, for those questions. I now recognize Mr. DeSaulnier for 5 minutes.

Mr. DeSaulnier, you are now recognized.

Mr. DESAULNIER. Thank you, Madam Chairwoman. Thank you for this hearing.

Mr. Murphy, having had a—or a long history with the ferries in the San Francisco Bay Area, particularly the commutes from the East Bay into the ferry building, we made good progress. But as I remember my time on the metropolitan planning organization and MTC, the modeling in the I-80 corridor—and for those of you who aren't familiar with it, it is our most congested part of the San Francisco Bay Area across the Richmond Bridge in my district, and then across the Bay Bridge—modeling was always a challenge, and we would like to be more like Seattle, and get the ridership up.

But maybe you can talk a little bit about how ferries can make an obvious difference, and particularly to communities that don't—nontransit-dependent or transit-dependent communities like the community I represent that now has a ferry that goes from Richmond into the ferry building. Maybe talk a little bit about those challenges of the measurability in high-congested corridors, and moving them off.

And we have a perfect example. The Bay Bridge is the most—one of—I think it is the second busiest toll bridge in the United States. How do we move traffic—and we can't build more infrastructure in there, it is prohibitive, and it costs—we have got the problem of induced demand.

So we have struggled in this area, and I know other urban areas have. How do you do the modeling that shows that people can get off, and it is not just exclusively people of means, that we also reach out to people who historically have been transit-dependent, and find it difficult to be able to take water transport?

Mr. MURPHY. Yes, thank you. Yes, and thank you for a long history of support for public transit in the bay area. It is a tough question. There are a number of aspects to it.

One thing we know we need to do to address congestion, though, is that we need to attract choice riders. We need to make sure that people who have the option to drive are choosing to take public transit—in this case, ferries—instead. That means we need to make our service relevant to their needs. We need to go where they want to go. It needs to be frequent enough. The convenience factor needs to be very high.

Ms. Rubstello brought up first/last-mile connections a few times now. That is critical to ferry service. We are a regional connection, but we can't necessarily solve that first/last mile unless we work with our partners who run buses, shuttles, employers to operate dedicated shuttles to first- and last-mile locations.

We have some transit network company, TNC, partnerships, where we make it affordable for folks to use TNCs to solve that first/last-mile commute, ideally with a carpool situation.

For transit-dependent riders, the fact is people paid a premium for ferry service prior to the pandemic. We were higher than other transit modes, and that created a “have” and “have-not” situation. We have addressed that with our pandemic recovery program. We have lowered our fares to be in alignment with other transit modes that operate in the same corridor. We don't want riders to have to choose one system over another because of price. We want to make sure they are choosing a system that works best for them, and it is up to us to make it affordable, and to make sure that it is relevant and actually does work best for their commute needs.

Off-peak service has been a real boon for our system during the pandemic recovery. It has been the most resilient part of our system, and we think that is because transit-dependent workers are likely to be traveling during the off peak to shift work, for example.

So those are a few things we need to do, and there are more, I am certain.

Mr. DESAULNIER. And then you bring up a good point with the history is—I mean, of course, your agency started with the idea. I remember then the president of the State senate, after Loma Prieta, that we couldn't be dependent on our bridges because we are in a seismic area. And then, of course, we have learned we have to be more resilient in other regards.

I was wondering if, Ms. Rubstello, if you could comment on your history, or any of the other panelists, around performance. It goes a little bit to the air quality issues. You know, we want to get those tons down, we want to get the system as good as possible when it

comes to traditional pollutants and carbon, but also the equity issues and the social justice issues. Ms. Rubstello?

Ms. RUBSTELLO. Yes, definitely on the social justice issues, it is really about having that reliable service. And we hear it across the board, that that is what is most important to people, it is that reliability. Because not showing up to work is a paycheck you are not collecting, so that is important.

One thing that we were hoping to start last year, before the pandemic hit, was a low-income fare option. That is something we currently don't have, but that is something that we want to consider, and so that is something we are looking forward to getting started soon, to see how we can further support those users that are out there.

Mr. DESAULNIER. Thank you, Madam Chair. I yield back.

Ms. NORTON. Thank you, Mr. DeSaulnier. Mr. Garamendi just mentioned to me hydrogen generation as an important way to fuel the ferry. We use it in our cars. I have one that uses it now. So I would like the record, since he didn't get an opportunity to ask that question, I would like to get his mention of that in the record. And now I am pleased to recognize Mr. Auchincloss.

You are recognized for 5 minutes.

Mr. AUCHINCLOSS. Thank you, Chairwoman, for holding this hearing to review the importance of investments in our ferry system to improve mobility for all people.

And to the witnesses, thank you for participating.

In Massachusetts, commuters rely on MBTA ferries to get to work in Boston from the South Shore, and to circumvent a horrendously congested vehicular traffic route. Island residents rely on ferries, not only for tourism revenue, but also as a lifeline for emergency services, food, medicine, and other essential equipment.

Ms. Rubstello, you discussed how Washington State Ferries is working to comply with Governor Inslee's goal of a zero-emissions fleet. Transportation in Massachusetts is the largest single source of carbon emissions. And as you mentioned, the Washington State Ferries' diesel fuel consumption makes it the largest generator of carbon and other greenhouse gas emissions from Washington State government.

How long do you think it is going to take to fully transition to a hybrid-electric fleet, and what can the Federal Government be doing to help meet that goal?

Ms. RUBSTELLO. Thank you for that question. Well, part of our long-range plan looked at how long it would take, and we think it is going to take 20 years to build out our fleet to be completely hybrid electric.

So, as our old vessels are coming due, we would just build new ones to replace them, as well as, as I mentioned earlier, the conversion of our three larger vessels that are ready for mid-term overhauls.

So the way the Federal Government can help is the funding side of it. I mentioned, not only from the conversion side, but we need, on the shoreside, the funding support to build that infrastructure that then can fully have those vessels be electric.

Mr. AUCHINCLOSS. Thank you.

And Mr. Garamendi, if you are interested, I am happy to yield the rest of my time to you if you wanted to ask questions about hydrogen or make any comments about hydrogen.

Mr. GARAMENDI. Mr. Auchincloss, that is very generous of you.

I believe that there is a ferry system in the bay area that is looking at this hydrogen very seriously, hydrogen being available from the various refineries in the area, and then using a fuel cell to generate the electricity for the propellant for—to propel the ferry.

I believe, Mr. Murphy, you are aware of this, and working with—is it the Red and White Fleet that is working on this—and if you would care to comment on the potential for it.

Also in the bay area and, really, around the Nation, there are fuel cell companies that are rapidly developing very powerful fuel cells. So, Mr. Murphy?

Mr. MURPHY. Yes, thank you, Congressman. There are some operators who have invested in a hydrogen vessel that would be a great demonstration project in the bay area. It is called the *Sea Change* and would be the first application of its kind. We are looking forward to seeing what happens with that. We will be involved in, to some extent, how that vessel is operating, at least from an analysis standpoint, and maybe more.

But hydrogen has a lot of potential on longer routes to be a zero-emission mode of choice, a zero-emission propulsion technology of choice, where electric technology can't quite provide enough of a charge to achieve a longer route and the speeds necessary to make the travel time accommodated for a longer route. Hydrogen is more robust, in terms of being able to provide that application.

Mr. GARAMENDI. And it is a technology that is readily available today. It is a matter of making it applicable to the ferry system.

I wanted to get this on the record. Once again, the Federal Government can help with all of these technologies and the transition from the carbon-based systems that are presently used to these zero-emission systems. That takes us back to the INVEST Act, where most of this was already included.

I thank the chairwoman for making it possible in the INVEST Act. "If only the Senate," which seems to be the mantra that we are singing so often here.

With that, Mr. Auchincloss, thank you for the time. Thank you.

Mr. AUCHINCLOSS. I appreciate the line of questioning from my colleague.

And Madam Chairwoman, I yield back.

Ms. NORTON. Thank you, Mr. Auchincloss and Mr. Garamendi. I now recognize Mr. Johnson for 5 minutes.

Mr. Johnson, you are recognized.

Mr. JOHNSON OF GEORGIA. Thank you, Madam Chair, for holding this hearing, and thank you to the witnesses for your time and your testimony. Ferries have long served a historic role in transportation throughout America, including in my home city of Atlanta, where they once enabled residents to cross the Chattahoochee River. Today ferries still provide critical services in places like Staten Island, New Orleans, and San Francisco.

What is more, ferries reduce our carbon emissions and alleviate congestion on roadways. For all of these benefits, ferries are vital

to our efforts to combat climate change and should be incorporated in our infrastructure modernization plans.

Ms. Rubstello, you explained how the pandemic led you to increase recruitment and workforce development efforts for maritime professionals. What outreach have you conducted to ensure equal opportunity employment for Black American workers, people of color, and women?

Ms. RUBSTELLO. Thank you for that question. It has definitely been a challenge for us. Pre-pandemic, we were much more engaged in the various communities that you mentioned to recruit into the industry. We have been just challenged on the recruitment front with the pandemic, just dealing with all the challenges of students working—or doing school from home, and that sort of stuff. But we are ramping that back up again and looking at every opportunity to get into those communities.

I also note that our region—we have a high school that is just started up that is focused on the maritime industry. So students going through high school are learning about what the industry offers, and getting some training so that they are ready to step into those roles when they get out of high school. So that is a good effort that is underway, and we look forward to additional schools like that to grab students at the high school level and bring them into our industry.

Mr. JOHNSON OF GEORGIA. Thank you. How does the cost of higher education, licensing, and entrant qualifications hinder equal opportunity, and how can Congress help mitigate the high costs?

Ms. RUBSTELLO. Yes, there are definitely costs for just getting in at the lowest level, everything from the security requirements that they have to go through, training that has to be done before they even have a job. And so, supporting those training efforts, subsidizing those expenses so that those who don't have the means can pay for daycare, and can pay for their lunches while they are at training, so any program that can support that is much appreciated.

Mr. JOHNSON OF GEORGIA. Thank you. As the maritime industry continues to expand, what plans are in place to ensure community preservation of minority neighborhoods surrounding ports?

Ms. RUBSTELLO. Well, I think a big piece for us is around our going to hybrid electric. Because of the demographics of—especially in the Seattle area, we know we have lower income people living closer to our port and marine industries. And so, the more we can be greener, and lower impact on the environment, it is best for the communities around us.

Mr. JOHNSON OF GEORGIA. Well, how about to actually preserve the presence of those neighborhoods surrounding ports, to ensure that those people are not displaced?

Ms. RUBSTELLO. We don't have any issues with displacement, but I think supporting the network, the transportation network, so that those communities have easy access to good jobs and the services that they need is really important.

Mr. JOHNSON OF GEORGIA. Thank you. What immediate environmental improvements do you anticipate by converting your fleet's vessels from diesel to hybrid-electric propulsion?

And how does that speak to long-term emissions trends in the maritime industry? And you just alluded to that.

Ms. RUBSTELLO. Yes, and I will just highlight, just in the conversion, as I mentioned, our three largest vessels, which produce the most amount of greenhouse gases, converting those is going to improve our emissions by 27 percent. And that equates to removing the equivalent of 10,000 cars off the road. So just with three vessel conversions we are going to have a huge impact to greenhouse gas emissions in our region.

Mr. JOHNSON OF GEORGIA. Thank you. And lastly, your testimony points to the public-private military partnership for the construction and operating of new transit service. How are you incorporating outreach to minority-owned businesses, for example, those from the Disadvantaged Business Enterprise program?

Mr. PRINCIPI. Sure, Congressman—

Ms. RUBSTELLO. Yes, we are—

Mr. PRINCIPI. Go ahead.

Ms. RUBSTELLO. Go ahead. Oh, I was just going to mention that we, in our State, have a very robust program to do an outreach and even a peer-to-peer kind of process to grow that industry for the maritime industry. I apologize.

Mr. JOHNSON OF GEORGIA. Thank you. And with that I yield back, I am out of time.

Ms. NORTON. Thank you, Mr. Johnson. I now recognize Mr. Lynch.

Mr. Lynch, you are recognized for 5 minutes.

Mr. LYNCH. Thank you, Madam Chair. I really do appreciate it. I want to thank the panelists for their good work on this issue.

I represent the Port of Boston, so not quite as bad, congestion-wise, as Mr. Sires is having in New Jersey, but we consider our ferry system a real blessing.

This year—well, this past August, I think we are up around 3,000 ferry trips in that month, which is about a 300-percent increase from last year, when we were really dealing with COVID in a more serious way.

Ms. Rubstello, I was very interested in your mentioning of converting the diesel ferries to electric, and I have been following this pretty closely. I actually had a bill that dealt with converting diesel buses in the transportation bill and converting the entire postal fleet to electric. So, I am very much aware of the obstacles and what that will involve.

But I am also keenly aware of the benefits that that would bring. And in the Boston area, our port area, I represent the coast, from the North End of Boston, in the city, all the way down to Scituate. So that whole area is heavily impacted by the ferry system. And, as others have said, and you have said already, it takes tens of thousands of cars off the road. It opens up the waterfront. We have got an island system that is pristine off the coast.

And so, I am just wondering how far along is the battery technology, and are we incorporating that idea in our ferry manufacturing system? Are we anticipating and moving away from building more diesel-powered ferries, or are we sort of anticipating the future, and trying to capitalize on the opportunity to go electric, if you will?

Ms. RUBSTELLO. Thank you for that question. Yes, I mean, I think the industry is ripe for it.

Obviously, Norway is kind of leading the charge, so from an international perspective, it is growing. In our local industry, there is a lot of emphasis on the innovation around the battery concept, and we have been working very closely with our local power provider, Seattle City Light, to find the most creative ways we can get the energy that we need to deal with our hybrid vessels.

So, I think it is great timing. I think we are poised for it. Unfortunately, I think funding keeps us from going faster and getting it implemented sooner.

Mr. LYNCH. Right, thank you.

In closing, I just want to say that we are also grappling with shore power. So, I know in Red Hook, in Brooklyn, that they have begun a process of, when they bring in their luxury liners, they are able to just hook up to shore power, and they are not blowing diesel out the stack while they are in port to run their operations. And there seems to be an overlap here, where bringing shore power to major port cities across the country, and the idea of going electric with our ferry systems, there seems to be a certain harmony there.

And I am just wondering if we might be able to piggyback those efforts, in terms of funding, because you are right, the gap here has been a lack of resources, not a lack of imagination or a lack of awareness of the problems that climate change bring. But there is a reluctance in, I guess, prioritizing that within the menu of responsibilities that we have here on the Transportation and Infrastructure Committee.

But I want to thank the chair, and I want to thank the full committee chair, Mr. DeFazio, because he has been an outstanding champion of expanding and improving upon our ferry systems, not only in the port cities of this country, but also our riverine communities, as well, where the ferry systems are equally as important.

So, with that, Madam Chair, I yield back. Thank you.

Ms. NORTON. Thank you very much, Mr. Lynch. I now recognize Mrs. Napolitano.

Mrs. Napolitano, you are recognized for 5 minutes.

Mrs. NAPOLITANO. Well, I really don't have ferries in my district. Thank you, Ms. Chairman. And I am happy to hear what the other mode of transportation needs are, and how we can help. It is important for us.

And I would like to yield time to Mr. Garamendi, if he so needs it.

[Pause.]

Mrs. NAPOLITANO. I guess not. John?

Ms. NORTON. He is not here at the moment.

Mrs. NAPOLITANO. OK. Well, I just wanted to say that it is important for us to hear what the issues are, and what—the conversion to electric batteries. We have a [inaudible] buses, so we have to be sure we include all modes of transportation in our communities, and that we know what those issues are, so that we can go ahead and do something to help the rest of the travelers be able to go to work, or to go to medical appointments, et cetera.

And I thank you very much. I yield back.

Ms. NORTON. Thank you, Mrs. Napolitano.

Let me thank each of the witnesses for your testimony today. Your comments have been very informative and helpful, indeed.

I noted in my opening remarks that this was the very first hearing ever had in the Congress on water transportation. Now that really says something. I don't know whether the era of climate change has brought us to understand that we have got to use every form of transportation, but particularly forms of transportation that do not contribute or contribute less to climate change. I think the testimony today has shown that water transportation has been too unrecognized, and maybe even unused by the Congress.

I ask unanimous consent that the record of today's hearing remain open until such time as our witnesses have provided answers to any questions that may be submitted to them in writing.

I also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members, or witnesses' responses, to be included in the record of today's hearing.

Without objection so ordered.

The subcommittee hearing is adjourned.

[Whereupon, at 11:45 a.m., the subcommittee was adjourned.]



## SUBMISSIONS FOR THE RECORD

---

### **Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure**

Thank you, Chair Norton, for holding this hearing. I commend you for your leadership of the Subcommittee and for holding hearings on important topics that have not had a dedicated hearing in this Committee before—tribal transportation, micro-mobility, and now the promise and potential of ferries.

Ferry service operates in diverse areas of the United States and fills a range of needs, including serving commuters and travelers, providing emergency services, and maintaining essential connectivity for communities. Today's witness panel represents ferry operations that cover all of these perspectives.

In the nation's most populated urban areas, ferries provide an alternative to crowded roadways and transit lines, helping to relieve congestion and improve mobility. They provide a transportation option for those who are unable to drive or unable to afford a car, allowing more residents to access jobs and essential services and experience an improved quality of life. In Oregon, development of the Frog Ferry service on the Willamette River is underway to do exactly this—to provide an efficient, clean, and enjoyable travel alternative to the Portland region's clogged roadways.

In other areas, such as Washington State, Maine, and Alaska, ferries provide essential connectivity between island and mainland communities. In many non-coastal, predominantly rural areas, including Kentucky, Montana, Oklahoma, Tennessee, Illinois, and Utah, ferry service is equally important. These services provide a crucial lifeline for their communities and make the transportation network more redundant and resilient, especially when flooding closes roads and bridges.

I am particularly interested to hear testimony from Ms. Rubstello regarding Washington State DOT's plans to fully electrify its ferry operations. As Chair of this Committee, I have focused intently on ways to reduce carbon and hazardous air pollution from our surface transportation system. Getting people out of personal vehicles and onto public transportation is essential in this effort and supporting public transportation options to become zero-emission was a high priority in the INVEST in America Act advanced by this Committee.

Given the diverse needs and uses we will hear about today, federal investment should support ferry service across the country. The INVEST in America Act boosted by 50 percent the funding for the Federal Highway Administration's Ferry Boat Discretionary program and more than doubled the funding provided for the Federal Transit Administration's Passenger Ferry Grants.

Unfortunately, while the Senate infrastructure bill provided a good boost in investment for ferry transportation, it was not done in an equitable manner. The Senate provided \$1 billion in guaranteed general fund appropriations for rural ferry investments. While I certainly support money for essential rural ferry service, this provision was crafted to direct money to systems that met a very narrow set of criteria. As a result, the U.S. Department of Transportation has told the Committee only *four* operators nationwide qualify for this \$1 billion. So, for example, Mr. Godar's rural ferry operation can't access these funds.

At the same time, the Senate bill flatlined FTA's Passenger Ferry grants that provide support to ferry systems in urbanized areas—meaning the systems that carry large numbers of passengers in congested areas including those represented by Ms. Rubstello and Mr. Murphy—are left to compete for funding at 2012 levels. And when we talk about urbanized area funding, we don't just mean big cities—that includes hundreds of smaller towns and communities that must compete for the same dollars.

There's no justification for having hundreds of eligible urban areas compete for \$150 million over the life of the Senate bill, while splitting \$1 billion between four

rural systems. That is certainly not the transformative, once in a generation investment that our nation's cities, towns, and rural areas desperately need and it's something we should fix going forward.

I look forward to a robust discussion on this and other topics related to ferry transportation today and thank our witnesses for joining the panel.

---

**Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure**

Thank you, Chair Norton, for holding this hearing, and thank you to our witnesses for participating today.

Generally, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) each administer separate programs to construct ferry infrastructure, or to establish new service and improve existing passenger ferry service.

The Senate infrastructure bill provides ferry programs with \$2.3 billion, representing an increase of 320 percent.

Ferries serve diverse areas of the country, much like our rural road and bridge network, and these programs need both dedicated resources as well as flexibility to address these areas' specific transportation needs.

Ultimately, we must start working together to sustain our core highway programs so that they can continue to deliver the resources needed for our communities and a national system.

I look forward to hearing about ferry ridership, technological innovations, and challenges identified in implementing ferry boat programs.

Thank you to our witnesses and thank you again for holding this hearing.

I yield back.

---

**Prepared Statement of Hon. Eddie Bernice Johnson, a Representative in Congress from the State of Texas**

Thank you, Highways and Transit Subcommittee Chairwoman Norton, and Ranking Member Davis for holding today's hearing. I also want to thank our witnesses for your testimony and participation.

We have heard from our witnesses this morning about the numerous benefits that ferries provide to a variety of areas in the nation. They have articulated some of the important ways in which ferries provide great benefit to the nation, since they not only reduce traffic congestion and contribute to clean transit alternatives, but also provide an easier means toward accessing critical social services, while providing an alternative, easier mode of transit in several communities that are cut off from mobility via highway or rail.

Although the city of Dallas does not operate a ferry system, the state of Texas benefits from two key ferry programs: one transports people and automobiles from Port Aransas to Harbor Island near the city of Corpus Christi, while the other ferry system goes from the port city of Galveston to Port Bolivar. The ferries in these areas offer benefits to the residents and tourists in that they allow them to avoid traveling exclusively on state highways to reach their destination, which in turn reduces travel time and fuel consumption. In addition, the ferry routes serve as a critical means of evacuation during hurricane threats. The Texas ferry system is also the only one in the country that does not charge a toll for vehicles and passengers, as the Texas Department of Transportation is required to use funding from the State Highway Fund for ferry operations.

## APPENDIX

---

QUESTIONS FROM HON. JENNIFFER GONZÁLEZ-COLÓN TO PATTY RUBSTELLO, P.E., ASSISTANT SECRETARY, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, FERRIES DIVISION

*Question 1.* In the FAST Act, there was a weighted formula that allocated \$80 million in annual funding with the following breakdown: 40 percent for the quantity of passengers, 35 percent for vehicles, and 30 percent for total route miles for the construction of ferries and ferry terminals. Does this provide enough flexibility or would something with less restrictions be better such as a block grant?

*ANSWER.* Ferry Systems have extensive, long-lived infrastructure. To efficiently and effectively contribute to the maintenance of this infrastructure, federal support needs to be predictable, reliable and sustained. Approximately 25 percent of Washington State Ferries capital and operating budget comes from federal sources.

The FHWA Ferry Boat Program formula was changed under the FAST Act to the following:

- 35 percent based on the number of ferry passengers, including passengers in vehicles, carried by each ferry system;
- 35 percent based on the number of vehicles carried by each ferry system; and
- 30 percent based on the total route nautical miles serviced by each ferry system. [23 U.S.C. 147(d)]

We support this formula distribution as it provides a predictable and reliable flow of federal support for our system, and we would not advocate for a change at this time.

Overall federal support for ferry systems is a combination of formula-driven grants and competitive grants. The mixture of formula-driven programs that provide predictable, reliable and sustained funding necessary for strategic investments and competitive grants that provide flexibility in directing resources to immediate needs. We believe the overall federal approach to supporting ferry systems provides for both strategic investment planning and operational flexibility.

*Question 2.* Ms. Rubstello, in your testimony you discuss utilizing technology to access more up-to-date information on ferry service that also connects with regional transportation networks, specifically using mobile apps to pay for service through regional fare programs and other tools.

I was successful in getting language into the INVEST Act that would require projects to include aspects that would reduce trips of single-person vehicle trips by giving users the ability to plan, use, and pay for multimodal transportation alternatives under the Community Climate Innovation grant program.

Simply put, this language could help ferry terminals bridge the technological gap to provide critical information such as arrival and departure time, capacity, and price when someone is trying to plan their daily commute.

How can communities and entities that operate ferry services like yours, and those that I represent best utilize technologies to increase ridership of ferry systems?

*ANSWER.* As your Community Climate Innovation grant program recognizes, the best way to increase ferry ridership and promote multimodal transportation choices is to make riding a ferry as easy and convenient as possible. There are several ways technology can promote this goal:

- *Provide real-time information to travelers.* Washington State Ferries has a GPS-based *real-time map* that shows the location of its vessels. It also provides *terminal-by-terminal information* on its website that includes traffic cameras, the availability of space to drive onto the ferry, and any relevant rider alerts. While WSF's technology is not completely seamless and has some limitations, the concept of providing real-time information is central to a positive customer experience.

To that end, WSF recently submitted a grant proposal to the U.S. Department of Transportation for implementing a “terminal wait time traveler information system” that would better inform customers about wait times/queue lengths at its terminals and integrate the different technologies mentioned above.

- *Manage transportation demand and congestion.* WSF has implemented a *reservation program* on two of its most popular tourist-based routes to help manage customer demand and provide some predictability for both visitors and residents alike. WSF’s *Long Range Plan* contemplates expanding the reservation program to other, more commute-based routes, but this will require investment in the ferry system’s technological and physical infrastructure.
- *Provide trip-planning and other tools to help facilitate ferry travel.* Transit partners in the Puget Sound region have been discussing the development of a regional trip planning system that identifies the best routes for travelers and incorporates all modes of transportation, including ferries, buses, vehicle/bike share programs, etc. Ideally this would be done via a regional Mobility as a Service (MaaS) application that has been successfully deployed in some cities across the globe. While this is a significant capital investment that requires extensive coordination between many agencies, such a tool would promote multimodal travel and the concept of “door-to-door, first mile/last mile” transportation.

Ultimately, investments in technology can be as critical as investments in vessels, terminals, and other physical infrastructure. While it may not be as visible as a new ferry or terminal building, these technologies have a significant effect on the usability of the system, and therefore on ridership and the customer experience.

*Question 3.* In your testimony, to implement every terminal with charging equipment will cost \$700,000 annually for the next 20 years, bringing it to the \$280 million total capital investment. How much will the complete transition from diesel to Low or No Emission ferries cost your agency and how much of that is expected to be supported by the Federal government versus state and local taxpayers?

I ask because Puerto Rico has 5 terminals and 11 ferries currently that would need to be replaced and equipped with charging technology to achieve similar goals, however there are 478 percent more riders contributing to that system than the 500,000 riders so far this year in my district. The Puerto Rico Maritime Transportation Authority states that it will begin to provide Low-No Emission ferry service in 2026.

*ANSWER.* The WSF System Electrification Plan calls for investment of nearly \$4B over 20 years to complete 6 vessel conversions, build 16 new vessels, and electrify 16 terminals. This investment will enable us to reduce our GHG emissions by 76 percent from 2005 levels.

Our electrification initiative comes at an opportune time given that many of our older diesel vessels are due for replacement in the near future. WSF appreciates the federal funding programs available for these projects. Full implementation of the System Electrification Plan will not be possible without substantial federal funding support. Sources of recent and anticipated funding include FTA, FHWA, MARAD and EPA.

*Question 4.* What can this committee and Congress do to ensure that there is a robust shipping industry in the United States? I’m a strong supporter of the Jones Act, but what can we do to become a net-exporter of ferries and ships?

*ANSWER.* U.S. shipbuilding is at a competitive disadvantage for two major reasons: first, it is very labor intensive, placing the US at a competitive disadvantage worldwide for anything but the smallest vessels, and second, its productivity is subject to a substantial learning curve, so shipyards with a steady backlog of orders tend to become more competitive, while others fall further behind. The Jones Act ensures we retain the capability to build essential vessels when needed, despite these market forces.

One example of where the U.S. can be particularly competitive is in shipboard systems. These systems rely in modern technology and a highly skilled workforce. The U.S. can support American businesses providing innovative systems to the shipbuilding market. This includes energy storage, automation and control systems, and machine learning.

QUESTION FROM HON. STEPHEN F. LYNCH TO PATTY RUBSTELLO, P.E., ASSISTANT SECRETARY, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, FERRIES DIVISION

*Question 1.* During the INVEST Act, I included language to ensure our nation's transit system, including ferries, is equipped with the necessary resources to combat cybersecurity attacks by allowing the Secretary of Transportation to enhance cybersecurity systems to mitigate these threats. It will also facilitate the procurement of cybersecurity experts to assess vulnerabilities and enhance the grant recipient's ability to secure updated software packages including firewalls and malware protection.

How have you been protecting your systems from cyberattacks and how could new assistance better safeguards ensure safety among your assets?

*ANSWER.* WSDOT's Information Technology Department has teams focused on monitoring the WSDOT network and the systems/applications that are on that network, along with a Cybersecurity Office that provides agency-wide program management and oversight. Standard processes include regular scans that identify vulnerabilities, threats, and risks within the WSDOT enterprise; coordinating with our vendors to deploy software and systems that meet State security requirements; and, performing security design reviews for any new software before it can be placed on our network. We work closely with the state CIO and state CISO to develop guidelines, policies, and procedures that are then distributed to our WSDOT employees.

As for ways to better safeguard our assets there are still more things that could be done:

- *Additional staffing resources*—more staff are needed to monitor and address the system vulnerabilities that are identified from software packages; deploy more frequent security patches to software systems by external vendors as they are constantly trying to address new threats; respond to malware attempts via phishing scams; constant development of guidelines based on current mandates and industry threats; and, focus more time on the increasing internal/external audits meant to ensure we are complying with mandates.
- *Marine Cybersecurity evaluation and funding ongoing needs*—thanks to an Urban Areas Security Initiative (UASI) grant we will be performing a cybersecurity evaluation of our various vessel classes to see how we can better protect them from a cyber-attack while opening up the network capabilities to allow our third-party systems to be accessed both internally and externally to provide real-time data for best performance. This evaluation will identify best practices and changes to be made to allow us to advance while maintaining that security. It is unknown how much funding will be needed to address any recommendations.
- *Increased infrastructure funding*—additional resources are needed to be able refresh infrastructure hardware per industry recommendations. Being able to refresh our infrastructure hardware more frequently allows us to use procure hardware that incorporated more security advancements.
- *Eliminating credit card from our systems*—Ideally, we would like to move our credit card data outside of our systems/applications that reside at WSDOT through such solutions as tokenization. Funding is needed to modify the systems/applications that process credit cards as well as setup relationships with vendors to manage the tokenization software. This will also require new front-end hardware at our point-of-sale devices.

QUESTIONS FROM HON. EDDIE BERNICE JOHNSON TO PATTY RUBSTELLO, P.E., ASSISTANT SECRETARY, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, FERRIES DIVISION

*Question 1.* Transportation is undergoing a revolution in automation. We see it today in automated driving systems for passenger vehicles, with its eventual potential for full automation. We also have had auto-pilot features in commercial airlines for quite some time. Where do each of you envision ferries' place in the future automation evolution?

*ANSWER.* Auto-pilot features have also been in place on marine vessels for quite some time and track control systems have advanced significantly over the last decade. The technology exists for a ship to be able to theoretically 'drive itself' from one port to another with very little human intervention. Technology is also advancing around the ability to berth a vessel at a dock or terminal which is a key factor when considering fully autonomous vessels.

Advances in artificial intelligence coupled with automation will continue to evolve. This will provide much better decision support tools, reducing human error and in-

creasing efficiency. Automation also has great potential to improve energy efficiency. The voyage planning aspect of automation provides for optimal vessel course speed throughout the voyage to meet schedule, avoiding excessive distances or power when it is not needed. The same technology applied to future hybrid electric vessels could reduce the battery sizing requirements as well as the amount of energy expended with each crossing.

Automation would not likely reduce crewing requirements, as the main driver for this is passenger safety in the event of an emergency. We anticipate that the USCG would need to develop regulation around fully automated vessels.

*Question 2.* What strategies do each of you believe can be promoted by this committee to enable greater use of ferries as a transportation option that would aid in the reduction of greenhouse gas emissions?

*ANSWER.* Water transportation has long been proven to be economical relative to other modes from a total energy consumption per ton perspective. The addition of clean energy technologies over the past several years increases this advantage, as vessels can now be fueled from renewable energy sources. These include clean hydrogen, renewable diesel, and battery energy storage systems. The short repeatable routes of most ferry operations generally make battery energy storage systems the preferred alternative. Some key strategies to implement this solution broadly include:

- Providing federal funding sources and financing options to support the large capital investments (vessels, terminals, and utilities) required for this transition. We were pleased to see Electric Ferry Programs in both the INVEST Act and the Infrastructure Investments and Jobs Act. Where essential technologies are not available from US manufacturers, temporary relief from Buy America should be considered to expedite this transition.
- Supporting ferry systems' efforts to increase ridership and empower people to get out of their cars and take public transportation. Some of WSF's efforts include improving the customer experience through technology. We are implementing tools that allow customers to plan their trip, receive real-time information about ferry departures and wait times, or have a seamless reservation, ticket-buying, and payment experience. Investing in technology infrastructure just as one would invest in a vessel or terminal building would enrich the customer experience and increase ridership, shifting travel modes and ultimately lessening the impact on the environment.
- Supporting transit, biking and walking infrastructure to and from terminals thereby allowing passengers to use the ferry system without a car.
- While we recognize that utilities may not be within the jurisdiction of this committee, we encourage Congressional support to upgrade shore-based electrical grids to support the large electrical loads required by ferry vessels. In some cases, this may require shore-based energy storage. Priority should be given to utilities that source their electricity through renewable sources. In many cases such investments can support the electrification of other transportation modes (electro-mobility hubs).

QUESTION FROM HON. RODNEY DAVIS TO SEAMUS MURPHY, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA)

*Question 1.* In your testimony, you mention difficulties with permitting requirements delaying projects.

What streamlining reforms would be most helpful to progressing ferry infrastructure projects and fleet 'greening'?

*ANSWER.* Projects in locations where the land meets the water require permits from over a dozen regulatory agencies. Most of these agencies conduct their review sequentially even though in many cases their review can be conducted concurrently. This sequential review negatively impacts project schedule. Increased project timelines adds to the overall cost of the project. Reforming the permitting process to include concurrent review of permits would result in a more efficient use of time and could lower the overall project cost.

QUESTIONS FROM HON. JENNIFFER GONZÁLEZ-COLÓN TO SEAMUS MURPHY, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA)

*Question 1.* In the FAST Act, there was a weighted formula that allocated \$80 million in annual funding with the following breakdown: 40 percent for the quantity of passengers, 35 percent for vehicles, and 30 percent for total route miles for the

construction of ferries and ferry terminals. Does this provide enough flexibility or would something with less restrictions be better such as a block grant?

*ANSWER.* There are two programs initially authorized under MAP-21 that are exclusively for the construction of ferry boats and ferry terminal facilities: the Section 1121 Federal Highway Administration (FHWA) Ferry Funding Formula Program and the Federal Transit Administration (FTA) 5307(h) Ferry Discretionary Grant Program. The FHWA program funding formula prescribed by MAP-21 was weighted towards car ferries and provided for distributing FHWA funds based on (in order of importance) the number of vehicles carried, total route miles serviced, and the number of passengers carried. While the formula was modified under the FAST Act to put more weight on the number of passengers carried, the FHWA formula continues to put passenger-only ferries at a competitive disadvantage.

The inequity inherent in the Section 1121 FHWA Ferry Funding Formula Program can be offset by FTA 5307(h) Ferry Grant Program if FTA awards grants to passenger ferry systems in congested urban areas and if the FTA program is funded at an adequate level. This is why it is critical that the \$1.5 billion that was intended to be included in the Senate-passed Infrastructure Investment and Jobs Act for the FTA 5307(h) Ferry Grant Program is included in whatever final bill is sent to the President.

*Question 2.* Mr. Murphy, what are the considerations that WETA is considering as it prepares to see increased ridership demand after adjusting schedules to new markets?

*ANSWER.* Thanks to the federal COVID relief funds WETA began implementing a Pandemic Recovery Program in July. The Program is a year-long series of fare and service changes focused on incentivizing ridership; testing the market for new travel patterns; and maximizing the relevance of our service for a new, more equitable post-pandemic ridership base. WETA lowered fares and aligned those fares with other transit modes. We also added a significant amount of off-peak service to accommodate the needs of lower-income, transit-dependent workers who could not work from home and who did not follow traditional commute patterns. Since we made our July changes, WETA's ridership has significantly outpaced other regional carriers and are well ahead of our fiscal year ridership projections. We will continue to monitor these trends and will use them to inform longer term fare and schedule programs designed to maximize ridership among a diverse set of markets and reorient the service toward fiscal sustainability.

*Question 3.* Will WETA continue to offer low-cost fares to neighborhoods and communities that will allow those riders access to transit systems? Will their fares be offset with high-priced fares in other communities or with Federal funds?

*ANSWER.* WETA continues to monitor the change in ridership trends and demographics as a result of the WETA's Pandemic Recovery Program. The intention is to continue to offer low fares and not charge a premium to ride the ferry. WETA is evaluating what permanent changes should be made to ferry service post pandemic so that the cost to ride the ferry is not a limiting factor.

In November 2020, WETA started participating in Clipper START pilot program, a regional means-based fare program offering discounted transit rides to eligible low-income adults on participating transit systems in the Bay Area. The Clipper START pilot allows adults who live in the Bay Area whose annual earnings are up to 200 percent of the federal poverty level to qualify for fare discounts at participating transit agencies. As part of the pandemic recovery program, WETA increased the Clipper START discount from 50 percent off paper ticket fares to 50 percent off Clipper fares for eligible adults effective July 1, 2021. Clipper START is being funded through state funds and WETA anticipates participating in the program as long as it stays in effect.

QUESTION FROM HON. STEPHEN F. LYNCH TO SEAMUS MURPHY, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA)

*Question 1.* During the INVEST Act, I included language to ensure our nation's transit system, including ferries, is equipped with the necessary resources to combat cybersecurity attacks by allowing the Secretary of Transportation to enhance cybersecurity systems to mitigate these threats. It will also facilitate the procurement of cybersecurity experts to assess vulnerabilities and enhance the grant recipient's ability to secure updated software packages including firewalls and malware protection.

How have you been protecting your systems from cyberattacks and how could new assistance better safeguards ensure safety among your assets?

*ANSWER.* WETA is continually assessing our cyber security needs. The flexibility included in the INVEST act is helpful for agencies to program how federal funds can best be used to enhance cyber security systems.

QUESTIONS FROM HON. EDDIE BERNICE JOHNSON TO SEAMUS MURPHY, EXECUTIVE DIRECTOR, SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA)

*Question 1.* Transportation is undergoing a revolution in automation. We see it today in automated driving systems for passenger vehicles, with its eventual potential for full automation. We also have had auto-pilot features in commercial airlines for quite some time. Where do each of you envision ferries' place in the future automation evolution?

*ANSWER.* WETA is excited to see the evolution of automated technology and how it can be applied to public transit, including water transit. We recognize that other industries are looking closely at automation, and we are monitoring these developments and lessons learned.

*Question 2.* What strategies do each of you believe can be promoted by this committee to enable greater use of ferries as a transportation option that would aid in the reduction of greenhouse gas emissions?

*ANSWER.* Providing additional federal funding is the biggest need. Over the last two years WETA has developed a plan to be a leader for the reduction of greenhouse gas emissions from commercial harbor craft sector. Our plan commits to transitioning 50 percent of our vessel fleet to zero emission technology. We are proactively going above and beyond current federal and state regulations to reduce emissions, but we need funding to implement it.

QUESTIONS FROM HON. JENNIFFER GONZÁLEZ-COLÓN TO HON. FRANK J. PRINCIPI, CHAIRMAN, M-495 FAST FERRY STAKEHOLDER GROUP, NORTHERN VIRGINIA REGIONAL COMMISSION

*Question 1.* In the FAST Act, there was a weighted formula that allocated \$80 million in annual funding with the following breakdown: 40 percent for the quantity of passengers, 35 percent for vehicles, and 30 percent for total route miles for the construction of ferries and ferry terminals. Does this provide enough flexibility or would something with less restrictions be better such as a block grant?

*ANSWER.* There is a more fundamental barrier to new ferry service—access to funds in the first place. The federal grant funding programs such as Federal Transit Administration (FTA); Federal Highway Administration (FHWA); and Maritime Administration (MARAD) are distributed primarily to existing service, not new service as we are proposing in the National Capital Region (NCR). As a result, FTA grant funds are distributed to existing services primarily operating in New York, Washington, and California. Congress should direct these federal agencies to award grant funds to both new and existing services in a greater number of states. Further, Congress should require the federal programs to allow these funds to be invested in operations and capital projects, not just the latter. The private sector is very willing to launch new service if the federal government shares the operational risks of a new service.

*Question 2.* Mr. Principi, how would the military participate in a public-private-military partnership, would this be done through existing authorities?

*ANSWER.* Yes, existing authorities would be used to allow the military to participate in public private partnerships, some of the military bases in the NCR are eager to participate in new ferry service through existing legal authorities and grant programs. For example, Joint Base Anacostia Bolling is considering the use of a real estate agreement with the government entity, enabling our service to drop-off and pick-up base employees. Our organization has applied (but not awarded), Defense Community Infrastructure Program (DCIP) funds that will help offset the cost of JBAB's shore-side infrastructure, e.g., terminal enhancements to ensure physical security needs. The Town of Indian Head, Maryland is considering an Enhanced Use Lease for a piece of property to use as a terminal site for the ferry service system. The ferry service would help the bases with parking and provide congestion relief at the gates during peak rush.

In the NCR, twenty-five percent (25 percent) of the Single Occupant Vehicles (SOVs) are due to DoD military, civilian, and/or contractors going to work. However, we are not able to use public funding on a federal installation. Most bases have very limited transit access and being able to provide an alternative to SOVs would greatly help the region with congestion and provide a more stress-free commuting experience for the people we are depending on to protect our county.

Once our service is operational, we plan for area military bases to participate in the governance of the service. Most of the military bases are along the Potomac River and to provide a more comprehensive transit services for our capital region military, civilians and contractors working on these bases, we would like to interface with already existing land transportation systems such as Metrorail and cross river service connecting the airport and employment centers along with the Pentagon. Ultimately our longer-term vision is to provide water links between DC, Maryland and Virginia and military installations on the Potomac and the Anacostia including the Navy Yard, JBAB, Fort Leslie McNair, Pentagon, Fort Belvoir, Indian Head and Marine Corps Base Quantico.

QUESTION FROM HON. STEPHEN F. LYNCH TO HON. FRANK J. PRINCIPI, CHAIRMAN, M-495 FAST FERRY STAKEHOLDER GROUP, NORTHERN VIRGINIA REGIONAL COMMISSION

*Question 1.* During the INVEST Act, I included language to ensure our nation's transit system, including ferries, is equipped with the necessary resources to combat cybersecurity attacks by allowing the Secretary of Transportation to enhance cybersecurity systems to mitigate these threats. It will also facilitate the procurement of cybersecurity experts to assess vulnerabilities and enhance the grant recipient's ability to secure updated software packages including firewalls and malware protection.

How have you been protecting your systems from cyberattacks and how could new assistance better safeguards ensure safety among your assets?

*ANSWER.* Commuter ferry service currently is not operational in the NCR. As such, we do not have systems in place that may be subject to cybersecurity attacks. That said, we agree with your assertion that all transit services in this country should have access to the resources necessary to plan for, respond to, and recover from cybersecurity threats. We also agree that federal agencies should partner with both public transit systems and private sector leaders in both transit and cybersecurity to address these vulnerabilities, including access to training, audits, and software packages. Additional funding is needed to secure the updated software packages with cyber security included as a foundational element and not an add-on. We want to note that these are not idle threats, a cyberattack on TransLink in Vancouver, BC in December 2020 (<https://www.translink.ca/about-us/about-translink/cyber-incident>) affected both customer facing and administrative/operational systems. TransLink's procurement portal was shut down for an extended period due to the attack. The threat is serious and very real.

QUESTIONS FROM HON. EDDIE BERNICE JOHNSON TO HON. FRANK J. PRINCIPI, CHAIRMAN, M-495 FAST FERRY STAKEHOLDER GROUP, NORTHERN VIRGINIA REGIONAL COMMISSION

*Question 1.* Transportation is undergoing a revolution in automation. We see it today in automated driving systems for passenger vehicles, with its eventual potential for full automation. We also have had auto-pilot features in commercial airlines for quite some time. Where do each of you envision ferries' place in the future automation evolution?

*ANSWER.* The evolution from automated to autonomous ferry vessel industry is underway in the US and overseas. Vessels are equipped with sensors, automated navigation and docking, propulsion, and auxiliary systems to name a few. Crewless vessels on the West coast of Norway (an area prohibiting emissions) are now being considered for passenger/vehicle services. While the driver for autonomous vessels is cost reductions (labor costs are the largest expense of ferry systems), human factors are typically the primary reason for safety incidents. While our current efforts are not focused on concepts of autonomous control or more autonomous assistance for vessel navigation, we are working to ensure that systems adopted are adaptable to more automated control as it becomes available. Our present focus has been on exploration of emission free propulsion systems that could add to the resiliency of the NCR transportation system without adding to emissions in the region.

*Question 2.* What strategies do each of you believe can be promoted by this committee to enable greater use of ferries as a transportation option that would aid in the reduction of greenhouse gas emissions?

*ANSWER.* Clearly, the Committee must first instruct the federal agencies to fund new commuter ferry service (current grant programs are directed to existing services). Further, these federal agencies must be willing to award grant funds to help subsidize ferry operations—just as the agency does for bus, rail, and subway services. These two steps would cause the private sector to also invest in new ferry serv-

ice and help make a go of it. The promise of new funding will enable all parties to put in place a fleet of zero-emission vessels.

The Department of Homeland Security through the United States Coast Guard is already moving to aggressively consider alternate zero-emission propulsion in vessel design regulations. But the fact remains the US is far behind development and investment in this strategy compared to Norway and Sweden. We would prefer to see funding directed to the USCG to bolster resources to advance the regulatory framework for zero emission technology and funding specifically directed to the National Academy of Sciences, Transportation Research Board to advance research and development of commercially viable zero emission propulsion packages for high-speed passenger ferries such as those in use in the waterways around New York, Puget Sound, and San Francisco Bay. Presently, this large and growing fleet of passenger ferries all operate on carbon-based fuels and continue to contribute daily to greenhouse gas emissions.

Finally, in addition to funding, support, and direction from the Committee towards the already established and effective federal financing vehicles will be beneficial to the greater use of ferries as a transportation option. For example, the Transportation Infrastructure Finance and Innovation Act (TIFIA) financing program provides comprehensive and supportive financing for infrastructure projects across surface, air, and transit asset classes. We believe that utilization of this program under the Build America Bureau provides the kind of lending power critical to project financing, project delivery, and in this case reduction of greenhouse gas emissions through expanded ferry transit in the NCR and in the United States and ask that you continue to support programs like these in providing a critical role for infrastructure.

QUESTIONS FROM HON. JENNIFFER GONZÁLEZ-COLÓN TO KYLE GODAR, COUNTY ENGINEER, CALHOUN COUNTY, ILLINOIS

*Question 1.* In the FAST Act, there was a weighted formula that allocated \$80 million in annual funding with the following breakdown: 40 percent for the quantity of passengers, 35 percent for vehicles, and 30 percent for total route miles for the construction of ferries and ferry terminals. Does this provide enough flexibility or would something with less restrictions be better such as a block grant?

*ANSWER.* The percentages used to allocate funding is not something that I feel needs to be changed. The flexibility we need is in terms of what work is determined to be eligible by FHWA.

*Question 2.a.* Can you describe the ownership structure that's preventing the access road that connects the Golden Eagle terminal with the nearest Federal-aid highway and what the Federal Highway Administration's guidance says that prevents Federal funding for you?

*ANSWER.* The section of roadway that connects the USACE land and dock to the Federal-aid highway has only been recorded as a private easement. It has been used as a public road and the tolls collected through the contract with Calhoun County have been used to maintain it. These tolls are considered public funds since they are in control of the County Board although the private company administers them. The roadway needs to be properly acquired and the ROW recorded which is part of what we desire to do with the FBP funds. The issue is also that there is no Missouri based Highway Authority that is willing to take on the project and inherit more roadway.

The FAST Act provides funding for Terminal Facilities. I believe the FHWA then further defines a terminal facility as follows. "*Terminal Facility.* A ferry terminal facility includes the structures and amenities that directly serve the ferry boat operation. These include passenger parking, ticketing, waiting area, boarding and disembarking facilities, docks, slips, dolphins and shore improvements necessary for docking, administrative space specifically for on-site ferry administration and vessel crew, and ferry vessel maintenance facilities. *It does not include approach roads to the terminal facility.*"

*Question 2.b.* Follow up: In Puerto Rico, we utilize Public-Private-Partnerships (P3s) in which the terminal is owned by the Maritime Transportation Authority and the operation and vessels are contracted out through a separate company. Is that a similar structure or option for service in your area?

*ANSWER.* At this time our terminal is not covered by the local port authority. Since my testimony was provided, it has led to various discussions with other agencies and we are now working with America's Central Port and investigating a potential expansion of their territory and how that could help resolve our issues.

*Question 3.* What would it take for “approach roadways” to be added to the Federal Air highway system? Is this a local decision, does it require legislation, or can it be done through a rule making at F.H.W.A.?

*ANSWER.* I believe a local Missouri based highway authority could make the decision to take in this section of roadway. At this time no Missouri based highway authority is willing to take on the extra roadway. We are currently looking into getting America’s Central Port involved as mention above. The other possibility would be to get a determination from the Secretary as the FHWA guidance includes the following statement. “Majority publicly owned—Ferry boat or terminal facility is more than 50 percent owned by a public entity and the Secretary determines that such ferry boat or terminal facility provides substantial public benefits.”

*Question 4.a.* Because of the one-size-fits-all approach to funding for ferries, how much funding has lapsed because of eligibility issues?

*ANSWER.* According to FHWA website \$18.6 Million of the \$73.4 Million of available funds for 2018 have not been allocated and should have been withdrawn on September 30th 2021.

*Question 4.b.* Follow up: How could this committee work to expand eligibility for the ferries and the service you provide to improve this for operations across the country?

*ANSWER.* Where privately owned operators are involved the local public agency that controls the tolls is supposed to review the cost incurred by the private operator and set the toll accordingly. In some areas where commuters utilize ferries to reduce vehicular miles traveled each driver decides which option is cheaper for them. If tolls get too high then commuters just drive. If available funds could be used to subsidize the private operator to a point that keeps tolls cost effective for drivers it could keep some of the smaller operations competitive and in business resulting in fewer vehicular miles traveled. The current legislation states the funds are for “Construction” and are not available for operations. This may not be applicable to many of the ferry operations across the country but could benefit our locations.

QUESTION FROM HON. STEPHEN F. LYNCH TO KYLE GODAR, COUNTY ENGINEER,  
CALHOUN COUNTY, ILLINOIS

*Question 1.* During the INVEST Act, I included language to ensure our nation’s transit system, including ferries, is equipped with the necessary resources to combat cybersecurity attacks by allowing the Secretary of Transportation to enhance cybersecurity systems to mitigate these threats. It will also facilitate the procurement of cybersecurity experts to assess vulnerabilities and enhance the grant recipient’s ability to secure updated software packages including firewalls and malware protection.

How have you been protecting your systems from cyberattacks and how could new assistance better safeguards ensure safety among your assets?

*ANSWER.* Our ferry system does not utilize internet connections or have a need for cyber security investments.

QUESTIONS FROM HON. EDDIE BERNICE JOHNSON TO KYLE GODAR, COUNTY  
ENGINEER, CALHOUN COUNTY, ILLINOIS

*Question 1.* Transportation is undergoing a revolution in automation. We see it today in automated driving systems for passenger vehicles, with its eventual potential for full automation. We also have had auto-pilot features in commercial airlines for quite some time. Where do each of you envision ferries’ place in the future automation evolution?

*ANSWER.* I do not believe automation would be applicable to our ferry system. The rivers in our area experience rapidly changing water levels, current flows, debris, and other issues that would make automation difficult and not a cost effective option.

*Question 2.* What strategies do each of you believe can be promoted by this committee to enable greater use of ferries as a transportation option that would aid in the reduction of greenhouse gas emissions?

*ANSWER.* As I stated above in my answers to Congresswoman Jenniffer González-Colón, if available funds could be used to subsidize the private operator to a point that keeps tolls cost effective for drivers it could keep some of the smaller operations competitive and in business resulting in fewer vehicular miles traveled. The current legislation states the funds are for “Construction” and are not available for oper-

ations. This may not be applicable to many of the ferry operations across the country but could benefit our locations.

*Question 3.* Mr. Godar, you mention in your testimony that guidance provided by the Federal Highway Administration and some of the eligibility requirements associated with the Ferry Boat Program funds have made it so that your county is unable to use this funding as you need to. Is there anything in particular that you think the Transportation and Infrastructure Committee could do to provide assistance with this issue?

*ANSWER.* The current language in the Fast Act provides funding for “construction of ferry boats and ferry terminal facilities”. Language could possibly be added to more clearly define the terminal facility to include any approaches to landings that are maintained by the operator out of funds derived from tolls collected or that are owned and maintained by a Port Authority.

*Question 4.* Mr. Godar, you testified that many ferry operations have had maintenance to major components of their publicly owned vessels determined ineligible. Do you have any recommendations as to how the committee could work jointly with the U.S. Coast Guard to address this problem?

*ANSWER.* Language could be added to allow funding for not only “Construction” of ferry boats but also include maintenance of major components of the boats.

○