

Federal Railroad Administration Corridor Identification and Development Program: Restoration of the North Coast Hiawatha Service



BIG SKY PASSENGER RAIL AUTHORITY



Application submitted by
Big Sky Passenger Rail Authority

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I. Cover Page

Corridor Title	Restored Service on the North Coast Hiawatha
Applicant	Big Sky Passenger Rail Authority
Was a Federal Grant Application Previously Submitted for this Corridor?	No
Other sources of Funding for the Corridor?	No other funding sources identified for Step 1
City(-ies), State(s) Where the Project is Located	Chicago, IL to Seattle, WA, and Portland, OR via Illinois, Wisconsin, Minnesota, North Dakota, Montana, and Idaho
Congressional District(s) Where the Project is Located	See Table 1 on Page 7
Is the Corridor Currently programmed or identified in: State rail plan, or regional or interregional intercity passenger rail systems planning study?	Yes, the Corridor is discussed in Montana and North Dakota State Rail Plans and Amtrak’s Long Distance Service Study.
Is the applicant working with other entities in support of the Corridor?	Yes. The BSPRA is working with the following entities that are supporting this corridor: Amtrak, Montana DOT (Department of Transportation), North Dakota DOT, Minnesota DOT, Wisconsin DOT, Missoula MPO (Metropolitan Planning Organization), North Dakota Commerce, Chippewa St Croix Rail Commission, Visit Dickinson. They would be included as members of any intergovernmental Advisory Committee created to contribute to and monitor any Study efforts.

II. Corridor Summary

This proposal would renew passenger service on the former route of the North Coast Hiawatha (NCH), with enhanced service running twice daily in each direction between Chicago and Seattle/Portland—traversing southern Montana and North Dakota along the way. It will create approximately two dozen internal travel markets and multiply ridership by interconnecting hundreds of smaller towns and communities and more than twenty (20) tribal nations with seven (7) of the top 100 U.S metropolitan areas and twelve (12) other metropolitan and fifteen (15) micropolitan areas. The route will expand the reach of the National Rail Network and intermodal connections to welcome global and national visitors to 500 miles of the scenic grandeur of the Rocky Mountains to Mt. Rainier and Mt. Hood and—in combination with its interconnected companion, the Empire Builder—Yellowstone, Glacier, Theodore Roosevelt, North Cascades, and Olympic National Parks. The NCH will transform the economy of the Greater Northwest region, revitalizing rural communities and tribal nations and providing access for underserved citizens to health care, education, other services, and civic resources often unreachable in winter when highways become unreliable or hazardous. The NCH route will serve as a key catalyst for

creating or renewing other passenger rail routes in the American West and Canada and will help awaken a 21st century rail renaissance in western North America. The Big Sky Passenger Rail Authority (BSPRA), a Montana regional passenger railway authority and subdivision of state government, will provide leadership for renewal of the NCH route in collaboration with state and local governments and relevant transportation agencies along the entire route.

III. Corridor Funding

This application is for \$500,000 of 100% federal funding for Step 1 of the Corridor ID Program. There is no requirement for non-federal matching funds in Step 1. The BSPRA understands that a non-federal match will be required for Step 2 (10%) and Step 3 (20%) activities. The match sources have yet to be identified, but are anticipated to come from state, local, and private entities, and Amtrak.

IV. Applicant Eligibility

BSPRA is an eligible applicant for the Corridor ID Program as a regional passenger rail authority and a political subdivision of a state, authorized by the laws of the State of Montana (§§ 7-14-1601, et. seq., MCA 2021). The purpose of that law is for the “preservation and improvement of abandoned rail service for agriculture, industry, or passenger traffic” [emphasis added]. Under this law, twenty (20) Montana county governments adopted resolutions creating and joining the Authority. The Authority qualifies under applicant categories C.1.e. and C.1.g. of the December 20, 2022, Notice of Solicitation of Corridor Proposals and Funding Opportunity for the Corridor Identification and Development Program. The member counties of the Authority—listed from Montana’s eastern border with North Dakota contiguously to its western border with Idaho—include Wibaux, Dawson, Prairie, Custer, Treasure, Rosebud, Big Horn, Carbon, Stillwater, Park, Gallatin, Broadwater, Jefferson, Silver Bow, Powell, Granite, Missoula, Lake, Mineral and Sanders counties. Ex officio members of the Authority include the Confederated Salish and Kootenai, Crow, and Northern Cheyenne Tribes, BNSF Railway, Amtrak, and the Montana Department of Transportation.

V. Detailed Corridor Description

1. Basic Characteristics of the Corridor

The NCH Corridor extends from Chicago, IL to Seattle, WA and to Portland, OR. Between Chicago and Fargo, ND, the route is the same as that used by the Amtrak Empire Builder: Metra/Canadian Pacific (CP) from Chicago to Milwaukee; CP from Milwaukee to Minneapolis, and BNSF Railway (BNSF) from Minneapolis to Fargo, ND. From Fargo, the NCH Corridor leaves the Empire Builder route and continues west on BNSF through Jamestown and Bismarck, ND to Glendive and Huntley, MT. From Huntley (east of Billings) to Sandpoint, ID, the NCH Corridor follows the BNSF-owned route, currently leased to Montana Rail Link (MRL), through Billings, Laurel, Bozeman, Helena, Garrison, Missoula, and Paradise to Sandpoint, ID, where it rejoins the route of the Amtrak Empire Builder to Spokane. From Spokane, the Corridor follows the BNSF to Seattle via the Empire Builder route. However, Corridor studies will also evaluate continuing from Spokane to Pasco, WA where the route would proceed through Yakima, WA and Stampede Pass to Seattle and may also continue to Portland, OR. Additionally, the Corridor studies will evaluate Wisconsin routes to include (a) Madison, WI and (b) Eau Claire, WI and Montana routes to include (a) Butte, MT and (b) St. Regis, MT.

Important characteristics within the Corridor:

- The reinstated service for the North Coast Hiawatha is proposed to be two round trips per day.
- On November 18, 2021, MRL asked federal regulators for permission to terminate its long-term lease of about 656 miles of track on BNSF's route (the NCH Corridor) between Huntley, MT and Sandpoint, ID. BNSF is experiencing extreme congestion in its Northern Transcon through Northern Montana and needs to resume control, operation, and maintenance of the route currently leased to MRL to regain needed capacity. The U. S. Surface Transportation Board (STB) issued a decision on March 8, 2023¹ to approve MRL's petition to conclude its long-term lease with BNSF. BNSF is expected to divert additional freight train traffic via the NCH Corridor and construct additional capacity improvements on the Corridor.
- The Corridor's many segments are primarily FRA Class IV track, equipped with Centralized Traffic Control (CTC) and Positive Train Control (PTC). Some segments of the BNSF and MRL track may be FRA Class III track, governed by Track Warrant Control. Between Chicago and Milwaukee, the Corridor is double track. The balance of the Corridor is primarily single track with controlled sidings with occasional segments of double track.
- Segments of multiple main tracks also operate in the St. Paul/Minneapolis area, including between Minneapolis and Big Lake, MN, where BNSF operates the Northstar commuter service for the Metropolitan Council. At normal service levels, approximately 10 Northstar commuter trains operate each weekday with weekend service also provided. A service extension from Big Lake to St. Cloud has also been under consideration. An additional frequency of the Amtrak Empire Builder between Chicago, Milwaukee and St. Paul/Minneapolis is also being considered by others in the Corridor.
- Between Chicago Union Station and Rondout, IL, Metra Milwaukee District's 58-60 commuter trains and an additional round trip freight train of the Wisconsin & Southern Railroad add congestion to the Corridor.
- Between Chicago and Milwaukee, Amtrak Hiawatha Service operates 7 round trip intercity passenger train per day (6 round trips on Sunday).
- CP freight trains (14-20 per day) operate between Chicago, Milwaukee, and St. Paul/Minneapolis in the Corridor.
- Between Minneapolis and Fargo, on its Northern Transcon, BNSF operates 50-70 freight trains per day in addition to the Amtrak Empire Builder. Many of the freight trains are high-priority intermodal trains.
- Between Fargo, ND, and Laurel, MT, much of the BNSF freight train traffic is loaded and empty coal trains that operate to and from the mines in Montana and Wyoming.
- Loaded and empty unit trains carrying grain, crude oil, and ethanol utilize the Corridor between Montana, Fargo, and Minneapolis/St. Paul.
- Mountain grade route characteristics and tunnels at Bozeman and Mullan Pass (Continental Divide) in Montana and at Stampede Pass, Washington limit Corridor capacity. Two former high-maintenance railroad routes through Butte, Montana (the Northern Pacific's Homestake Pass, and the Milwaukee Road's Pipestone Pass) are both out of service. There is a possibility that Homestake Pass could be brought back into service but the right-of-way on Pipestone Pass is not available as a route option.

¹ *Progressive Railroading*, March 9, 2023.

- BNSF eliminated a major bottleneck on its Northern Transcon (and the NCH Corridor) at Sandpoint, ID, on November 20, 2022, by completing construction of a new 49-span single-track bridge (4,873' long) adjacent to its existing single-track bridge between Sandpoint Jct. and East Algoma over Lake Pend Oreille. The NCH Corridor rejoins the BNSF Northern Transcon at Sandpoint Jct.

The Corridor's main objective is to restore intercity passenger rail service for the many communities across the lower tier of cities in both North Dakota and Montana, connecting them with the major cities on both ends of the Corridor. The Corridor includes several national parks and other major tourist destinations. While the proposed service would be two round trips per day, the details of the proposed service have yet to be fully developed and will be one of the first priorities in the service development planning in Step 2.

2. Corridor Readiness

The BSPRA is very committed to seeing this project implemented. The Authority was created to investigate, analyze, seek funding for, and develop long-distance inter-city passenger rail service across southern Montana. The Authority believes the best way to achieve that objective is to re-instate service on the Chicago to Seattle Amtrak NCH route. This route is also currently being evaluated in the Congressionally mandated Amtrak Daily Long-Distance Service Study.

3. Completed and Ongoing Eligible Activities

There have been no service development activities initiated or completed for this corridor. Those are anticipated to be developed in Step 2. There were two previous planning efforts that will provide inputs to future service development planning. Amtrak completed its PRIAA Section 224 – North Coast Hiawatha Passenger Rail Study Plan in 2009. Additionally, the Rail Passengers Association in September of 2021 released a high-level socioeconomic study evaluating the potential reinstatement of the NCH.

4. Intended Operator

It is expected that the operator of this corridor will be Amtrak since the North Coast Hiawatha was previously an Amtrak route. It is expected that this will be confirmed during the completion of Step 1.

5. Legal, Technical, and Financial Capability and Capacity

The Big Sky Passenger Rail Authority (BSPRA) was established to realize passenger rail service once again through southern Montana. The boards of county commissioners of member counties signed a Joint Resolution in 2020 providing the governance structure to investigate, analyze, seek funding for, and develop long-distance inter-city passenger rail service across southern Montana. BSPRA is a Montana regional passenger rail authority and subdivision of the state. It is governed by a board of appointed directors representing each member county, with ex officio directors representing Amtrak, BNSF Railway, the Montana Department of Transportation, and the Crow, Northern Cheyenne, and Confederated Salish and Kootenai Tribes.

6. Challenges Corridor Aims to Address

The nation is faced with the challenge of needing to “fill in the Gap” in the northwestern United States where no passenger rail service currently exists and has not for many years. By resuming service on the North Coast Hiawatha, a considerable piece of that gap will have been filled in even while a significant gap will remain.

There will be challenges in determining the actual route or the North Coast Hiawatha when service is reinstated. There are optional alignments identified in Wisconsin, Montana, Washington, and Oregon. Working with all the stakeholders involved in this effort during the service development planning to be done in Step 2 will be critical.

There will be engineering challenges associated with some of the alignments that will also be challenging when it comes to putting a rail passenger service back in operation after being out of service for so many years.

7. Expected Users and Beneficiaries of the Corridor

The rural communities through which the Corridor passes will all benefit from this renewed service. The residents will have a new all-weather travel option that will provide access to doctors and hospitals in the larger cities that are not available in the numerous smaller, underserved communities. In Montana and North Dakota, this route will provide access to state capitals allowing citizens access to various governmental services not currently readily available.

Research indicates that, percentagewise, rural communities receive a greater economic boost from passenger rail than urban centers. Thus, in contrast to all other major transport modes, passenger rail revitalizes these communities. In turn, that improves the social determinants of health in these smaller communities and boosts health outcomes.

The tourism industry across the Corridor will benefit from renewing NCH passenger service. The sheer majesty of the NCH route is unparalleled. It rises from the vast waters of the Pacific and Great Lakes. It navigates powerful and storied river valleys—the Mississippi, the Red River of the North, the Missouri, Yellowstone, Clark Fork, and Columbia. It traverses twice as many miles of the Rocky Mountains as any other rail line. With proposed route options, it passes Mt. Rainier and Mt. Hood. In combination with its companion, the Empire Builder, visitors from around the globe will reach Yellowstone again, along with Theodore Roosevelt, North Cascades, Olympic, and Glacier National Parks.



Figure 1. From the Pacific Coast: Seattle and Mt. Rainer in the Fall.



Figure 2. To the Great Lakes: Sunset over Milwaukee Art Museum and Skyline. (Photo Credit: @johne.photo)

8. Potential Scaling or Phasing of the Corridor

BSPRA is amenable to discussing scaling and phasing with FRA and Amtrak. On this corridor, phasing may mean initiating service with one round trip and then adding the second in a “second phase” of operations.

9. Prioritization of Corridors

Resuming service on the North Coast Hiawatha is the highest priority for the Big Sky Passenger Rail Authority and is the focus of this application. However, improving service on the Empire Builder, which parallels the NCH, is also a priority of the BSPRA and other partners across the Corridor.

10. Other Important Information

Letters of Support are included in Attachment 2.

VI. Corridor Location

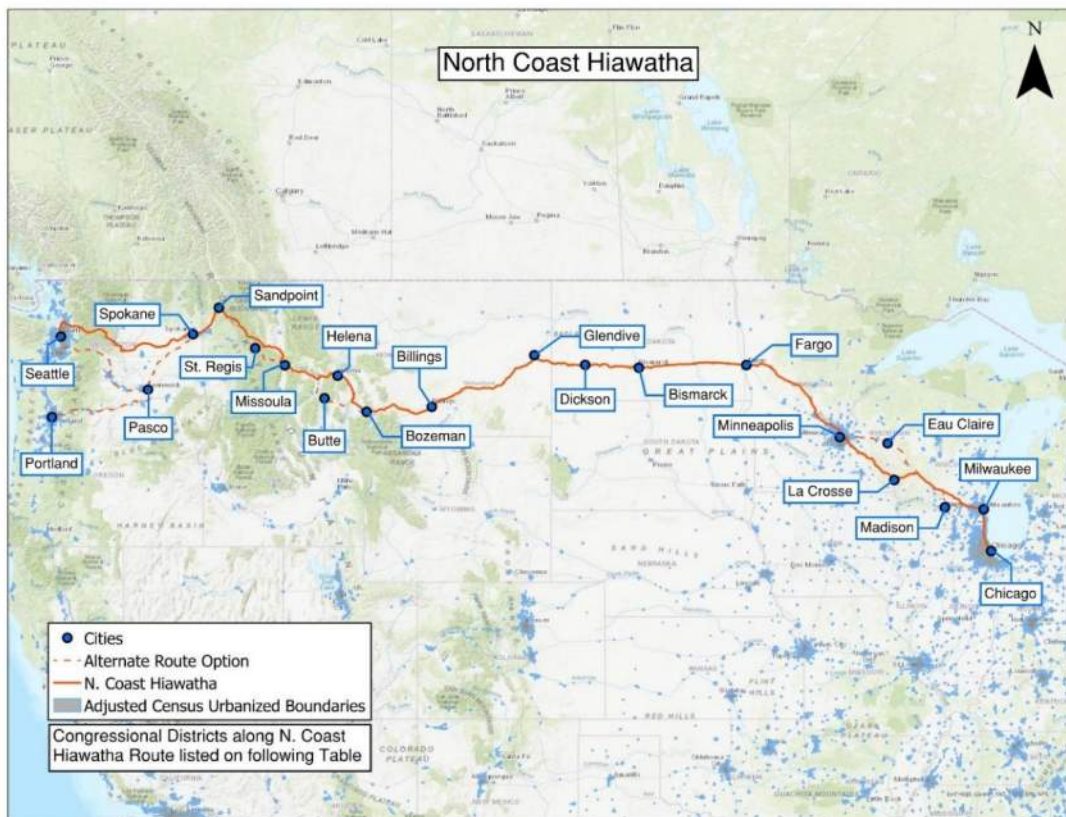


Figure 3. Map of Proposed North Coast Hiawatha Route.

Table 1: Congressional Districts

Congressional Districts Along North Coast Hiawatha Route						
Illinois	Wisconsin	Minnesota	North Dakota	Montana	Idaho	Washington
7	1	2	1	1	1	5
3	4	4		2		4
5	2	5				8
9	5	3				9
10	6	6				7
	3	7				
	2					
	7					

VII. Evaluation and Selection Criteria

Corridor Benefits

A. Ridership, Revenue, Capital Investment, and Operating Funding Requirements

As this Corridor has not been operated since it was discontinued in 1979, there is no ridership or revenue data available. As many as 426,000 passengers can be expected to take this train each year once it reaches a steady state of operation, including perhaps as many as 29,000 new passengers who would not otherwise travel at all using any travel mode if the train did not exist.² The Capital Investment and Operating Funding requirements for the Corridor will be identified in future service development planning efforts to be conducted in Step 2 and arising out of the FRA’s Amtrak Daily Long-Distance Service Development Study.

B. Environmental, Congestion Mitigation, and Other Public Benefits

Passenger rail is inherently more environmentally friendly than any other mode of passenger travel. Intercity Passenger Rail is 11.1% more efficient in terms of greenhouse gas equivalents per passenger mile than air travel and is 34.8% more efficient than the automobile. A study completed by the Rail Passengers Association in 2021 also suggested reduced vehicle-miles-traveled (VMT) of 45.9 million when the route is reopened. Due to the nature of the trips taken on this and other long-distance routes, and the trips that would be taken off the highways, there is not significant improvement in congestion mitigation with this Project. However, there are significant other public benefits related to re-instatement of the NCH service. This service will provide an all-weather route through this tier of northern states that can see very hazardous winter driving conditions for several months of the year. The service will also connect numerous rural communities to medical and other services where connections to such services do not exist today. Additionally, many tribal nations are adjacent to or near the route of the NCH and will benefit from this new transportation option.

It is a given that passenger rail—using a fraction of the energy of motor vehicles per passenger rail—will help combat climate change. That positive environmental impact will be even greater for the NCH as it

² Rail Passengers Association Research Note, October 2021.

reduces the use of motor vehicles over long distances and in winter weather when vehicle fuel consumption is higher. Further, the NCH will also provide a substitute for high-emission air travel that in this region can be less direct and less convenient than train travel.

C. Projected Trip Times and Competitiveness with Other Modes

Projected trip times will be identified as part of the future service development planning effort. This will also include an analysis of the competitiveness of the passenger rail mode vs. automobile, aviation, and intercity bus. When considering the competitiveness of other modes, one of the attributes of reinstating this former passenger rail service is that many of the short distance air travel opportunities that existed in the late 1970s along this Corridor are no longer offered. Also, the intercity bus network has been reduced over this same period.

D. Economic and Employment Impacts

The Rail Passengers Association in September of 2021 released a [Study](#) evaluating the potential reinstatement of the NCH. It projected ridership of 426,000 annual riders if the previous route were utilized and served by one round-trip per day. The study also suggested that \$270.6 million in economic benefit would accrue to the states and communities along the route.

The NCH line will transform economies in the Greater Northwest region. More refined research combined with twice daily service will potentially yield estimates of a higher economic return. A bedrock component of that return will be good-paying union jobs for passenger rail maintenance and operations. The train will also be an instrument of increasing productivity and income for professionals and technical personnel who will travel over long distances and perform work on the train that is impossible while driving a vehicle. The extraordinary natural features in this region will attract more visitors by rail and boost the region's tourism economy to new levels—especially in rural and tribal communities. Renewing the NCH will help create a rural renaissance in the Greater Northwest.

E. Benefits to Rural Communities

There are numerous rural communities across this route that will benefit from reinstatement of rail passenger service. When the route was discontinued in 1979, there were many intercity bus routes operating to provide an alternative to the discontinued rail service. Many of those intercity bus routes have now been discontinued as well. Also, there were several smaller regional route air services that connected some of the larger communities. Many of these now also have been discontinued leaving numerous small rural communities with only the option of traveling by automobile. Passenger rail would once again provide a necessary transportation option. By adding two roundtrips per day, additional ridership would be obtained by allowing daylight arrivals/departures where the previous one train per day service across this lengthy route had trains arriving and departing at many locations along the route in the middle of the night; this most certainly diminished the desirability of using the previous service.

F. Benefits to Historically Unserved, Underserved and Low-Income Communities or Areas of Persistent Poverty

Hundreds of small and medium-sized towns are nestled along or within the catchment area of the route. Many of these are unserved or underserved and have considerable areas of consistent poverty. Importantly, more than 20 tribal nations and communities are located on or near the route—a distinctive characteristic of this NCH route.



Figure 4. Historic Return of Bison Range to Confederated Salish and Kootenai Tribes by U.S. Dept. of the Interior.

The [Housing and Transportation Affordability Index](#) (H+T Index), developed by the Center for Neighborhood Technology, measures the cost of burden of housing and transportation within communities. Location efficiency metrics are part of the H+T Index, which considers communities that are close to jobs, services, and transportation availability. Neighborhood characteristics score access to jobs, public transit, and walkability on a scale of 1-10. The H+T Index also specifies annual transit costs and the percentage of residents who utilize public transit to commute to work. H+T Index data can be found in Table 2.

Table 2: Housing and Transportation Index for NCH Corridor

City	Location Efficient Neighborhoods (%)	Job Access	Transit Performance	Density/Walkability of Neighborhoods	Annual Transit Costs (\$)	Transit Ridership % of Workers
Chicago	55	8.9	9.1	6.8	9800	25
Milwaukee	13	7.8	7.0	7.0	11,000	6
Minneapolis	47	9.2	8.7	6.0	10,800	12
Fargo	15	7.2	4.2	5.6	11,600	3
Bismarck	10	6.7	3.1	5.4	13,000	2
Billings	0	6.1	3.7	5.0	12,900	2
Missoula	0	6.6	5.0	5.3	12,100	3
Sandpoint	0	4.1	3.3	6.8	12,700	1
Spokane	2	7.0	5.8	5.7	12,300	4
Seattle	40	9.1	8.3	6.1	11,100	14
Portland	14	8.7	8.3	5.0	12,600	10

According to Table 2, Chicago, Minneapolis, and Seattle have the most location efficient neighborhoods. Of these communities, only 12-25% utilize public transportation to commute to work. Billings, Missoula, and Sandpoint have the lowest percentage of location efficient neighborhoods at 0%, followed by Spokane at 2%. The remaining cities all have percentages of location efficient neighborhoods at or below

15%. Job access scores lowest in Sandpoint, followed by Billings and Missoula. Bismarck, Billings, and Sandpoint all have a transit performance of less than four. Fargo, Bismarck, Billings, Missoula, and Portland all have a neighborhood density and walkability score of less than six. Annual transit costs are higher in cities with lower percentages of location efficient neighborhoods. Reestablishing the NCH line will help increase the percentage of location efficient neighborhoods, job access, transit performance, and density and walkability of neighborhoods. Annual transit costs will be reduced, and more workers can use public transit for their commute.

Communities along the NCH Corridor are disadvantaged and underserved in several areas of transit and transit-related disparities. Reestablishing the NCH service will provide an investment in transportation that has been lacking in these communities, helping alleviate the transportation-related disparities that impact them. It will increase the efficiency of cities and accessibility of jobs, allowing people to spend less time and money on transportation. Expanding the service will also provide greater access to affordable transportation, connect communities to other modes of transportation and provide additional options for those who commute to work. Finally, reestablishing the NCH service will create opportunities to connect communities to additional resources and to each other.

G. Connectivity with Existing or Planned Transportation Services of Other Modes

The development of this route will be accompanied with a comprehensive plan for timely, safe, and energy efficient/environmentally friendly “first mile, last mile” transportation services. These existing local and regional transit/transportation networks will be linked to the passenger rail stations along the route. This connectivity will also focus renewed economic activity in these communities realizing this new passenger rail service.

H. Corridor Connections to Populated Metropolitan Areas

The NCH will connect an array of communities of assorted sizes, types, and cultures—including seven of the top 100 metropolitan areas in the nation with more than 22.6 million people (about the population of New York) in 2020—plus 12 other metropolitan and 15 micropolitan areas. The NCH would connect the major cities at the east and west ends of the corridor, Chicago, and Seattle, to other major cities and larger communities along the corridor. A variation of the NCH would provide service to Portland, Oregon and also connect to the Amtrak Pioneer if that service is eventually reinstated. Many of these cities and communities along the route only have air travel and the automobile as transportation options. The route of the NCH would also now serve state capitols of Helena, MT and Bismarck, ND--connecting them with other capitols—St. Paul, MN and (under a route option) Madison, WI.

I. Regional Equity and Geographic Diversity

In addition, hundreds of small and medium-sized towns are nestled along or within the route's catchment area. Importantly, more than 20 tribal nations and communities are located on or near the route—a distinctive characteristic of this NCH route. The service will help to address a major gap in Amtrak's national east/west service network left between the Empire Builder and the California Zephyr which was created when the NCH service was discontinued in 1979. The major population centers of Montana and North Dakota will now have passenger rail service.

J. Integration into National Rail Passenger Transportation System

Amtrak's national network would be enhanced with the reinstatement of NCH service and expanding the Empire Builder to twice daily service. Additional passenger rail customers would have access to the

major passenger rail hub of Chicago, providing additional customers to the numerous long distance and regional feeding trains originating and terminating at Chicago Union Station. Similarly, on the west coast, new rail passenger customers would have access to Amtrak's long-distance services in Washington and Oregon, connecting to California. If the Pioneer service between Denver and Portland is renewed, there would be connections to Boise, Salt Lake City, and Denver. This would include a link to the California Zephyr in Denver currently and the Southwest Chief potentially in the future when Colorado completes its Front Range Passenger Rail service initiative.

Finally, the mere prospect of the NCH route has already stimulated interest in rail connections from Calgary to Billings, Denver and beyond, even to El Paso. Similarly, Los Angeles to Salt Lake City to Montana and Calgary via routes west or east of the Rockies becomes possible to imagine. A renewed NCH line can stimulate a dramatic revival of passenger rail.

Technical Merit

K. Applicant Readiness

The Big Sky Passenger Rail Authority (BSPRA) was created in 2020 to resume passenger rail through southern Montana. This effort is an extension of that mission. The Authority hosted a Greater Northwest Passenger Rail Summit in 2022 which was key noted by FRA Administrator Amit Bose. The Authority has taken a leadership role in promoting passenger rail along the NCH route ever since its inception. The Authority retained the services of an Executive Management Consultant to guide its operations, which will include leading the consultant procurement for the Service Development Plan (SDP) in Step 2 of the Corridor ID process. The Authority has in place a fund-raising program within both the public and private sectors to develop non-federal funding that will be required for the 10% match for Step 2 service development planning efforts. The authority will continue to work closely with Montana DOT and other state agencies in creating additional funding partners.

L. Technical Qualifications and Experience of Key Personnel

As stated above, the Authority's recent contracting with an Executive Management Consultant and the Authority's existing partnerships with other qualified consultant teams will ensure that Steps 1 and 2 are completed effectively and efficiently. As a subdivision of Montana State government, the Authority board includes an array of elected officials, transportation experts, and industry representatives, all with extensive experience in passenger rail operations. Given the regional scope of this undertaking, we will collaborate with state departments of transportation along the route for technical advice and consultation.

M. Commitment to Implementation and Operation of Corridor

In 2020, the Authority worked collaboratively with the offices of U.S. Senators Jon Tester and Roger Wicker to draft what became Section 22214 of the Bipartisan Infrastructure Law. This language directed the U.S. Department of Transportation to conduct a nationwide study of restoring discontinued Amtrak service and is known as the Amtrak Daily Long-Distance Service Study. The study is currently underway with recommendations going to Congress in November 2023. Members of Congress throughout the Greater Northwest region have expressed support for the North Coast Hiawatha, and the Authority's board of directors includes Amtrak, BNSF Railway, and the Montana Department of Transportation.

N. Route Identification in Planning Studies

Amtrak completed its 2009 Study of the North Coast Hiawatha, and the Rail Passengers Association also evaluated the Corridor in a Study released in September of 2021. The Corridor is also identified in the Montana and North Dakota State Rail Plans.

O. Non-Federal Funding for Operating and Capital Costs

Non-Federal funding has yet to be identified. Any non-federal funding requirements will be identified in service development planning efforts. If the route is once again part of Amtrak's Long-Distance network, non-federal funding requirements are assumed to be minimal. There would be expected to be some local/regional funding requirements related to revitalizing and rehabilitating previous or new passenger rail stations along the route.

P. Corridor Inclusion in State Rail Plan

The Corridor is identified in both the Montana and North Dakota State Rail Plans.

Q. Passenger Rail Operator Support

Amtrak is the assumed operator of the Corridor if it is re-instated as part of Amtrak's Long-Distance network. Both BNSF Railway and Amtrak are ex-officio members of the Big Sky Passenger Rail Authority.

VIII. DOT Strategic Goals

Safety

Passenger rail is a very safe mode of passenger transportation. The Bureau of Transportation Statistics indicates that passenger rail is more than 10 times safer than automobile travel in terms of fatalities per billion passenger miles. The addition of this service across the corridor between Chicago and Seattle/Portland will take many cars off America's highways and replace those automobile passenger miles with people traveling on a much safer mode of transportation, thereby reducing serious injuries and fatalities.

Economic Strength and Global Competitiveness

Infrastructure Investment and Job Creation

Restoration and renewal of this corridor will encourage local communities and regions to undertake projects, developments, and activities to encourage enhanced ridership. Tribal and rural areas that have been in decline will receive proportionally greater socio-economic benefits from passenger rail than the more prosperous cities along the route. Preliminary, conservative economic research that assumed once daily service indicated an impressive \$271 million annual economic boost to the regional economy. More refined research combined with twice daily service will yield estimates of a higher economic return. A bedrock component of that return will be good-paying union jobs for passenger rail maintenance and operations. The energy around passenger rail stations across the NCH corridor will also generate new economic activity. The train will also be an instrument of increasing productivity and income for professionals and technical personnel who will travel over long distances and perform work on the train that is impossible while driving a vehicle.



Figure 5. Restored Livingston, MT Railroad Depot Awaiting North Coast Hiawatha Passengers.

Support Resilient Supply Chains and Economic Opportunity

Certain infrastructure improvements (passing sidings, double tracking in strategic locations, etc.) will also provide operational improvements for the host Class I railroad's existing and future rail freight traffic. The new passenger rail service will also provide access to jobs and job markets that currently do not exist in many locations along the Corridor. In larger communities, the ability to develop transit-oriented development around passenger rail stations and multi-modal hubs will also increase.

Equity

Socioeconomic indicators for communities along the NCH corridor are shown in the following table (Table 3). State and national statistics, which can be used for comparison, are found in Table 4. The demographic index, calculated by the US EPA, is a statistic based on the average of the number of low-income residents and people of color in an area. Other socioeconomic indicators, including unemployment rate, number of limited English-speaking households, level of education, and age, are used to determine the vulnerability of communities to environmental factors, such as Superfund proximity and air pollution. Data was compiled using the [EJScreen tool](#) developed by the US EPA.

Table 3: Socioeconomic Indicators for Cities Along the NCH Corridor

Socioeconomic Indicators	Chicago (%)	Milwaukee (%)	Minneapolis (%)	Fargo (%)	Bismarck (%)	Billings (%)	Missoula (%)	Sandpoint (%)	Spokane (%)	Seattle (%)	Portland (%)
Demographic Index	51	57	43	24	16	22	24	25	28	29	29
People of Color	67	66	49	19	13	16	12	11	19	37	30
Low-Income	36	49	37	30	19	28	36	38	36	19	27
Unemployment Rate	8	6	5	4	3	4	5	3	6	4	5
Limited English-Speaking Households	8	4	7	2	1	0	0	0	2	5	3
Less than High School Education	14	16	12	6	6	5	4	13	7	5	7
Under Age 5	6	8	7	7	7	6	5	4	6	5	5
Over Age 64	13	11	11	13	18	18	13	20	16	13	13

Chicago, Milwaukee, and Minneapolis all have significant populations of people of color and relatively high demographic indices. Chicago, Milwaukee, Minneapolis, Missoula, Sandpoint, and Spokane all have a relatively high population of low-income residents.

Consistent, reliable public transit is essential for improving equity among tribal, rural, and urban communities throughout the region. The demographic indicators provided by the US EPA are representative of some of the most vulnerable groups within communities. Such groups often rely on public transportation due to its affordability and accessibility. Milwaukee and Chicago are both diverse cities with large populations of vulnerable groups. Reestablishing the NCH/L service will help increase regional equity by providing greater access to affordable modes of transit and connections to other modes of transportation. This will, in turn, increase connections between communities and provide more economic opportunities.

Climate and Sustainability

The FEMA National Risk Index is used to illustrate communities in the US that are most at-risk for natural hazards, which are increasing in frequency and severity due to climate change. One component factored into the risk index is the expected annual loss, which represents the amount of money lost from natural hazards each year. Social vulnerability, an additional component, is a risk factor that represents the susceptibility of communities to adverse impacts of natural hazards. Community resilience is the final component of the National Risk Index. It represents the ability of communities to prepare for natural hazards, withstand disasters, and recover from disruptions. The Risk Index for several cities along the corridor can be seen in Table 4.

Table 4: FEMA National Risk Index Along NCH Corridor

	Chicago	Milwaukee	Minneapolis	Fargo	Bismarck	Billings	Missoula	Sandpoint	Spokane	Seattle	Portland
Risk Index	Very high	Relatively high	Relatively moderate	Relatively low	Relatively low	Very low	Relatively low	Very low	Relatively low	Relatively high	Relatively high
% of US counties with lower risk index	99.5	95.4	90.3	70.8	40.8	39.5	62.0	29.5	72.1	97.4	97.7
% of counties in state with lower risk index	100	100	98.8	96.2	81.1	71.4	89.2	45.4	41.0	97.4	97.2
Expected annual loss	Very high	Relatively moderate	Relatively high	Relatively moderate	Relatively low	Relatively low	Relatively low	Very low	Relatively low	Very high	Relatively high
Social vulnerability	Relatively moderate	Relatively high	Relatively low	Very low	Relatively low	Relatively low	Relatively low	Relatively moderate	Relatively low	Very low	Relatively moderate
Community resilience	Relatively moderate	Relatively high	Relatively high	Very high	Fairly high	Relatively high	Relatively moderate	Very low	Relatively moderate	Relatively moderate	Relatively moderate

As seen in Table 4, Cook County, IL has the highest risk index, followed by Multnomah County, OR; King County, WA; and Milwaukee County, WI. The remaining counties fall under a risk index of moderate or lower. Some of the highest-risk natural hazards include cold waves in Cook, Milwaukee, Spokane, Missoula, Hennepin, and Cass counties; hail, ice storms, winter weather, and flooding in Hennepin and Milwaukee counties; and tornadoes and strong winds in Cook, Hennepin, and Milwaukee counties. Due to their unique geographies, King and Multnomah counties are at risk for natural hazards that are not seen in the Midwest, including earthquakes, volcanic activity, and coastal flooding. The risk for these hazards is classified as very high or relatively high.

The highest expected annual losses are in King, Cook, Multnomah, and Hennepin counties, respectively. The most socially vulnerable county is Milwaukee County at relatively high, followed by Cook, Bonner, and Multnomah counties at moderate. Communities with the highest resilience are Burleigh and Cass Counties in North Dakota. Yellowstone, Hennepin, and Milwaukee counties follow with relatively high community resiliencies.

The National Risk Index is essential when evaluating the vulnerability of communities to climate change, which has greater impacts on underserved communities. A component of their resiliency to the increasing intensity and severity of natural hazards due to climate change is the durability and reliability of infrastructure. The Project will implement various safety and infrastructure improvements throughout the corridor, ensuring it is in a state of good repair and increasing its resilience to natural hazards. Additionally, the rail mode itself is much more environmentally friendly and runs during all weather conditions. These factors will increase the resiliency of the communities along the Corridor.

Transformation

The infrastructure on the existing freight railroads using the route will be improved to operate passenger trains at desirable passenger speeds. These improvements will benefit the freight railroad operations by increasing the national rail network's state of good repair. Additionally, it will benefit rail freight movements and the efficiency of the nation's supply chain that was exposed during the recent pandemic.

Previous Federal High-Speed Rail Corridor Designations

The only portion of the corridor that was included in the High-Speed Rail Corridor designations in the Intermodal Surface Transportation Efficiency Act (ISTEA) was the eastern segment: Chicago - Milwaukee - St Paul.