

Idaho Transportation Department Carbon Reduction Strategy

2024



Acknowledgments

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List of Abbreviations and Acronyms

23 CFR 420	Code of Federal Regulations, Title 23, Part 420
BIL	Bipartisan Infrastructure Law
CMAQ	Congestion Mitigation and Air Quality Program
CO ₂	Carbon Dioxide
CRP	Carbon Reduction Program
CRS	Carbon Reduction Strategy
DOT	Department of Transportation
EPA	Environmental Protection Agency
EV	Electric Vehicle
FHWA	Federal Highway Administration
FY	Fiscal Year
GHG	Greenhouse Gas
IDEQ	Idaho Department of Environmental Quality
IJA	Infrastructure Investment and Jobs Act
ITB	Idaho Transportation Board
ITD	Idaho Transportation Department
ITD-PT	ITD's Public Transportation Office
ITIP	Idaho Transportation Improvement Program
ITS	Intelligent Transportation System
LHTAC	Local Highway Technical Assistance Council
L RTP	Long-Range Transportation Plan
MPO	Metropolitan Planning Organization
MMTCO _{2e}	Million Metric Tons of Carbon Dioxide Equivalent
NEVI	National Electric Vehicle Infrastructure
OEMR	Office of Energy and Mineral Resources
POE	Point of Entry
PPSM	People per Square Mile
RTAP	Rural Transportation Assistance Program
STIP	State Transportation Improvement Program
TDM	Transportation Demand Management
TEA-CART	Transportation Evaluation and Carbon Reduction Tool
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TPIMS	Truck Parking Information Management System
TSMO	Traffic System Management and Operations
VMT	Vehicle-Miles Traveled
WIM	Weigh In Motion

Executive Summary

Overall, Idaho has good air quality. National carbon emissions data per 2021 Environmental Protection Agency (EPA) indicates Idaho produces less carbon dioxide (MMTCO₂e) emissions than the surrounding states and is well below the national average by 75 percent. In 2021, Idaho produced roughly 37.8 million metric tons of carbon dioxide [CO₂] equivalent.¹ Transportation accounted for roughly 11 million metric tons (MMTCO₂e), or 29 percent, of all carbon emissions produced within Idaho. The total and transportation emissions vary between states and across the country due to a wide range of factors such as size of the state, the economy, population, and population densities. One reason Idaho produces fewer total overall emissions is largely due to fact that more than half of Idaho’s power is generated from renewable resources. Fifty percent of the power produced in Idaho comes from hydropower and fifteen percent from wind power.²

Carbon Reduction Program

Authorized as part of the 2021 Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL), the purpose of the Federal Highway Administration (FHWA) Carbon Reduction Program (CRP) is to “reduce on-road transportation emissions through the development of state carbon reduction strategies and by funding projects designed to reduce transportation emissions.”³ The CRP funds projects and strategies that are planned and implemented at state, regional, and local levels. The BIL requires the Idaho Transportation Department (ITD) to develop a Carbon Reduction Strategy (CRS) to reduce emissions from on-road transportation in consultation with Idaho’s Metropolitan Planning Organizations (MPOs). This strategy will guide Idaho’s implementation of the federal CRP requirements. The BIL allocates an estimated \$6.4 billion over 5 years nationwide for Carbon Reduction Programs. Idaho’s 5-year funding is estimated to be \$47 million, averaging \$9.4 million per year. Federal funding allocations are calculated based on Federal-aid Highway funding received in fiscal year (FY) 2021.

CRS Development Process

Upon completion of federal guidelines, the ITD began developing the Idaho Transportation Department Carbon Reduction Strategy in 2023 using a framework that includes a series of steps to identify, evaluate, and prioritize carbon reduction strategies for the state of Idaho. The ITD applied the following process: 1) identify the full range of potential carbon-reduction strategies; 2) determine strategy reasonability and feasibility taking into consideration Idaho’s specific transportation needs and context; 3) identify strategies based on MPO, Idaho Department of Environmental Quality (IDEQ), and Idaho Transportation Board (ITB) and ITD leadership input; 4) for the subset of feasible and priority strategies, evaluate the potential carbon reduction impact for each strategy using the draft Transportation Evaluation and Carbon Reduction Tool (TEA-CART); 5) estimate the cost effectiveness of each strategy; and, 6) finalize priority strategies based on the agency priorities, discussions, and analysis.

¹ Source: The most recent data from the [EPA Greenhouse Gas Inventory Explorer](#)

² Online at: <https://www.epa.gov/egrid/data-explorer>

³ Source: 23 U.S.C. 175 as established by the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as the “Bipartisan Infrastructure Law” (BIL)) (BIL § 11403).

ITD Priority Carbon Reduction Strategies

The ITD has examined a range of carbon reduction strategies eligible for CRP funding, feasibility, and context sensitivity to Idaho. The ITD has identified strategies that maximize cost efficiency and improve the transportation system. The outcome of the CRS development process identified three strategic categories to receive CRP funding, including Truck Parking and Freight Amenities, Traffic Operations and Technology, and other potential carbon reduction strategies. Figure ES.1 details strategies along with project types eligible for CRP funding:

Figure ES.1 Idaho’s CRS Priorities and Strategy Areas

Priority Strategies and Eligible Project Types		
1	2	3
Truck Parking and Freight Amenities	Traffic Operations and Technology	Other
<ul style="list-style-type: none"> Truck Parking and Staging Areas Truck parking communication systems (availability detection and dissemination, also known as Truck Parking Information Management System or TPIMS) Electrical hookups for the purpose of powering ancillary equipment (refer units, cab power) at truck parking facilities, including truck parking at ports and at drayage and warehouse facilities 	<ul style="list-style-type: none"> Signal timing optimization Adaptive signals Intelligent Transportation System (ITS) and signage <ul style="list-style-type: none"> Dynamic/Variable message boards 511 Information system Weigh In Motion (WIM) <ul style="list-style-type: none"> Tire Anomaly Detection 	<ul style="list-style-type: none"> Zero Emission Vehicles Carpool Transit Sidewalks Walk/Bike Facilities Separated Pathways Lane Shoulders Rail Barges

Implementation

The Carbon Reduction Program, under IIJA and BIL, distributes funding based on regional population density. Per the CRP federal guidance, funding will be apportioned into the five categories as listed in Table ES-1:⁴

Table ES-1 Federal Carbon Reduction Program Apportionment Requirements

		Estimated Apportionment Breakout: 65% to TMA, Large & Small Urban and Rural. 35% to Any State Area.				
		TMA (Over 200K)	Large Urban (50K–200K)	Small Urban (5K–50K)	Rural (Under 5K)	Any State Area
Project Selection Authority		COMPASS	ITD in coordination with MPOs	ITD in coordination with MPOs	ITD	ITD
Apportionment		15.31%	20.13%	9.43%	20.12%	35%
FY 2022	\$9,044,000	\$1,385,000	\$1,821,000	\$853,000	\$1,820,000	\$3,166,000
FY 2023	\$9,225,000	\$1,412,000	\$1,857,000	\$870,000	\$1,856,000	\$3,229,000
FY 2024	\$9,408,000	\$1,440,000	\$1,894,000	\$887,000	\$1,893,000	\$3,293,000
FY 2025	\$9,598,000	\$1,469,000	\$1,932,000	\$905,000	\$1,931,000	\$3,359,000
FY 2026	\$9,790,000	\$1,499,000	\$1,971,000	\$923,000	\$1,970,000	\$3,427,000

⁴ Source: 23 U.S.C. 175 as established by the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as the “Bipartisan Infrastructure Law” (BIL)) (BIL § 11403).

Currently, the ITD plans to prioritize truck parking and freight amenities to reduce emissions. As detailed in the analysis within this strategy, these project types offer the highest potential for reducing transportation related carbon emissions in Idaho. The ITD allocates funds consistent with Idaho Transportation Board (ITB) Policy 4028; and federal funds must be allocated consistent with federal requirements.⁵ Per the federal code of regulations [23 U.S.C. 134\(k\)\(5\)](#), the Transportation Management Area (TMA) will select projects within their boundaries and funding apportionment in consultation with ITD.⁶ As stated in the [US Code of Federal Regulations \(CFR\) 23 USC 134](#): Metropolitan transportation planning (k) Transportation Management Areas; (5) Selection of projects;

(A) In general.-All Federally funded projects carried out within the boundaries of a metropolitan planning area serving a transportation management area under this title (excluding projects carried out on the National Highway System) or under chapter 53 of title 49 shall be selected for implementation from the approved TIP by the metropolitan planning organization designated for the area in consultation with the State and any affected public transportation operator.

(B) National highway system projects.-Projects carried out within the boundaries of a metropolitan planning area serving a transportation management area on the National Highway System shall be selected for implementation from the approved TIP by the State in cooperation with the metropolitan planning organization designated for the area.

As required by federal legislation, the ITD will coordinate with the MPOs and local jurisdictions to identify projects or parts of projects eligible for CRP funding in the Large and Small Urban categories. The ITD will select eligible projects for CRP funds based on the Priority Strategies and Eligible Project Types identified in Figure ES.1

Public input will be sought through the established State Transportation Improvement Program (STIP) and MPO Transportation Improvement Program (TIP) public comment processes. The STIP is updated annually, including public outreach workshops with the Idaho Transportation Board in each local district for statewide engagement.

In summary, the \$47 million from the federal IJA 5-year funding had not been dispersed since 2021 as ITD awaited federal Carbon Reduction Program guidance from FHWA, which was received in 2022, allowing ITD to begin this draft CRS and the funding allocation discussion in 2023 for Idaho Transportation Board and FHWA consideration and approval in 2024.

⁵ Source: [Allocation of Federal Formula Highway Apportionment to Local Public Agencies \(idaho.gov\)](#)

⁶ Source: [23 U.S.C. 134\(k\)\(5\)](#)

1. Overview of the Federal Carbon Reduction Program and the required Idaho Carbon Reduction Strategy

Carbon Reduction Program

The Carbon Reduction Program (CRP) was authorized as part of the Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL). The purpose of the Federal Highway Administration (FHWA) Carbon Reduction Program (CRP) is to “reduce on-road transportation emissions through the development of state carbon reduction strategies and by funding projects designed to reduce transportation emissions.”⁷ The CRP funds projects and strategies that are planned and implemented at state, regional and local levels to reduce emissions from on-road transportation sources. The BIL requires the Idaho Transportation Department (ITD) to develop a Carbon Reduction Strategy (CRS) to reduce transportation emissions in consultation with Idaho’s Metropolitan Planning Organizations (MPOs). This strategy will guide Idaho’s implementation of the BIL’s CRP, which provides an estimated \$47 million to Idaho over 5 years.

Carbon dioxide (CO₂) is one of several greenhouse gases (GHGs) produced from on-road transportation sources. Carbon reduction strategies (CRS) aim to reduce transportation carbon emissions. As many forms of on-road transportation produce carbon emissions, it is through strategic transportation planning and programming that the ITD and its planning partners can identify, fund, and implement strategies to reduce these emissions statewide. The ITD has examined carbon reduction strategies eligible for CRP funding, considering their feasibility and alignment with Idaho’s context and priorities. The ITD has prioritized strategies to maximize the cost efficiency of federal funding while remaining in alignment with State and MPO priorities and improving the transportation system. Table 1-1 summarizes the process to prepare this CRS in consultation with the MPOs in the State and to develop prioritized strategies while keeping in context of the State.

Table 1-1 CRS Compliance with Federal Requirements

Requirement	Detail	Reference Section
Prepare CRS in Consultation with MPOs	Idaho’s MPOs were invited to provide input via questionnaires and participation in multiple meetings hosted by the ITD ⁸ , where they were asked to provide input on strategy feasibility and identify regional strategies. Through the use of a draft carbon impact and cost tool (TEA-CART), the ITD analyzed the effectiveness of potential project types, including those identified by the MPOs, ITD staff, and IDEQ. The MPOs were given the opportunity to review and discuss the results of this analysis.	Pages 31-33 Pages 33-35 (TEA-CART)
Develop prioritized strategies	Prioritize strategies and identify eligible project types to be considered for federal CRP funding.	Pages 36-37
Context of the state	Idaho’s distinct characteristics and unique context shaped the development of the ITD CRS.	Pages 14-24

⁷ 23 U.S.C. 175 as established by the Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as the “Bipartisan Infrastructure Law” (BIL)) (BIL § 11403).

⁸ At the time of consultation, MVMPO, had not officially formed. MVMPO established December 07, 2023

Available CRP Funding

The BIL allocates an estimated \$6.4 billion of federal funds over 5 years nationwide for Carbon Reduction Programs (CRPs). Idaho’s 5-year funding is estimated to be \$47 million, averaging \$9.4 million per year. Federal CRP funding allocations are calculated based on Federal-aid Highway funding received by the state in federal fiscal year (FY) 2021. In accordance with the BIL, 65 percent of Idaho’s CRP funds will be apportioned based on population density, for projects or parts of projects that align with the prioritized carbon reduction strategies according to Table 1-2. The remaining 35 percent of funds are eligible to be used statewide without consideration to population density.

Table 1-2 Carbon Reduction Program (CRP) Apportionment Requirements ⁹

		Estimated Apportionment Breakout				
		65% to TMA, Large & Small Urban and Rural; 35% to Any State Area				
		TMA (Over 200K)	Large Urban (50K–200K)	Small Urban (5K–50K)	Rural (Under 5K)	Any State Area
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FY 2026	\$9,790,000	\$1,499,000	\$1,971,000	\$923,000	\$1,970,000	\$3,427,000

The ITD allocates funds consistent with Idaho Transportation Board Policy 4028¹⁰ and federal requirements. The federal share match for the CRP is based on a sliding scale that adjusts the local match for each state. Idaho’s local match requirements is 7.34 percent; local sponsors must have funding available for match at time of project selection.

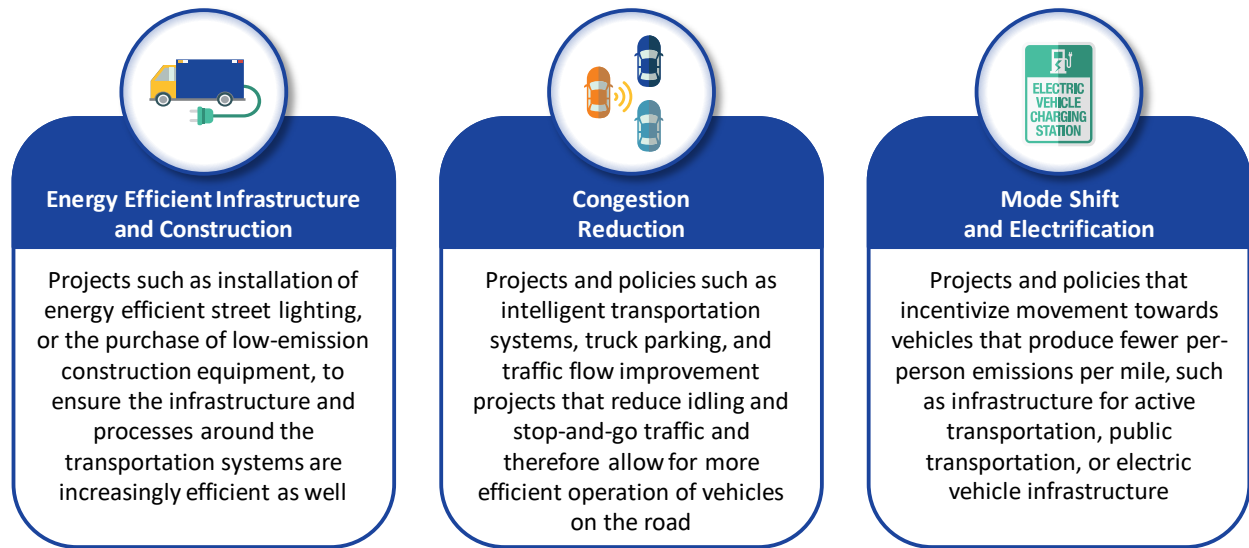
Federally Eligible Projects

A wide variety of projects are eligible for federal CRP funding under the BIL, with many listed within the federal [guidance](#). Eligible projects include transportation infrastructure improvements and services that reduce on-road transportation carbon emissions. The federally identified strategies are categorized below in Figure 1.1.

⁹ Source: [INFORMATION: Carbon Reduction Program \(CRP\) Implementation Guidance \(dot.gov\)](#)

¹⁰ Source: [Allocation of Federal Formula Highway Apportionment to Local Public Agencies \(idaho.gov\)](#)

Figure 1.1 Federal Carbon Reduction Program Strategies



The federal guidance encourages state selected eligible strategies to align with a series of broader national goals shown above for the transportation system. The ITD prioritized strategies are specifically tailored to meet the unique needs of the state, considering its geography, economy, total population, and population distribution, all of which play significant roles in determining the efficacy of the CRS strategies. This includes enhanced public outreach to underserved communities, such as low-income and minority households. Input from state and local agencies regarding feasibility was taken into consideration throughout the CRS development process.

2. Carbon Reduction—Idaho Context

Planning Context—The State of Idaho

Overall, Idaho has good air quality. National carbon emissions data per 2021 EPA data indicates Idaho produces less carbon emissions than all surrounding states and is well below the national average by 75 percent. Idaho's produces fewer total carbon than all bordering states, as shown in Figure 2.15. In 2021, Idaho produced roughly 37.8 million metric tons of carbon dioxide [CO₂] equivalent.¹¹ Transportation accounted for roughly 11 million metric tons (MMTCO₂e), or 29 percent of all carbon produced in Idaho. The total and transportation emissions vary among states and across the country due to wide range of factors such as size of the state, the economy, population, and population densities that allow for a variety of transportation options. One reason Idaho produces fewer total overall emissions is largely due to fact that more than half of Idaho's power is generated from renewable sources. Fifty percent of the power produced in Idaho comes from hydropower and fifteen percent from wind power.¹²

The federal CRP guidance states that each CRS be developed to fit the specific context of each state. This context considers numerous factors, including, but not limited to, geography, existing transportation systems, travel demand patterns, and population characteristics, such as demographics, density, growth, and the economic needs to support growth. With an increasing population and economy, it is important to acknowledge the unique challenges each region faces. When evaluating and prioritizing carbon reduction strategies for inclusion in the CRS, the ITD carefully considered the state's unique context, regional, and population differences.

Population Density and Growth

Idaho is a large and diverse state economically and geographically, comprised of mountains, high deserts, and forests, serving multiple regional economies. With a population of over 1.9 million people, Idaho ranks 38th in total population in the United States, but 14th in geographic size.¹³ The majority of Idaho's population lives in the Snake River Basin. Figure 2.1 depicts a map of Idaho outlining its current MPOs and ITD district boundaries. Based on the results of the 2020 census, a new MPO in the Twin Falls area (Magic Valley or MVMPO) was established (December 07, 2023).

Population density

Idaho's population density is relatively low—about 22.3 people per square mile, ranking 44th in the US. While most of Idaho's counties are rural in nature, Idaho has several regions with higher densities, each served by one of Idaho's MPOs. Figures (2.2 - 2.7) depict the population density of each of Idaho's six MPOs. Population density affects transportation demand and can impact the effectiveness of carbon reduction projects. For the purposes of strategy analysis using the draft Transportation Evaluation and Carbon Reduction Tool (TEA-CART), 'rural' is defined under 500 people per square mile (PPSM), 'suburban' as 500-4,000 PPSM, 'urban' as 4,000-10,000 PPSM, and 'core urban' over 10,000 PPSM.

¹¹ Source: The most recent data from the [EPA Greenhouse Gas Inventory Explorer](https://www.epa.gov/egrid/data-explorer)

¹² Online at: <https://www.epa.gov/egrid/data-explorer>

¹³ Data sourced from: <https://www.census.gov/quickfacts/fact/table/ID/PST045222>.

ITD Districts and MPOs

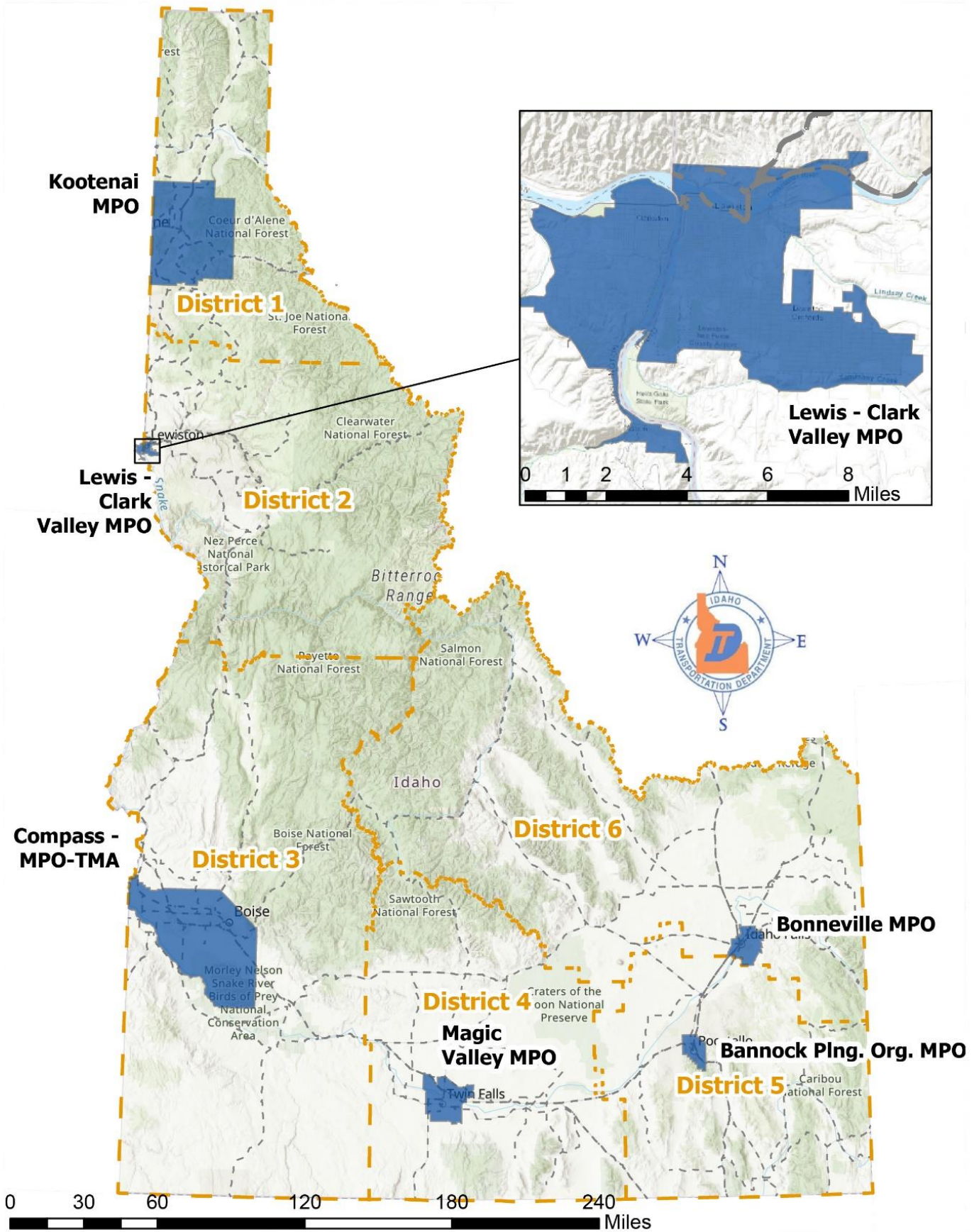


Figure 2.1 Map of Idaho and its MPOs

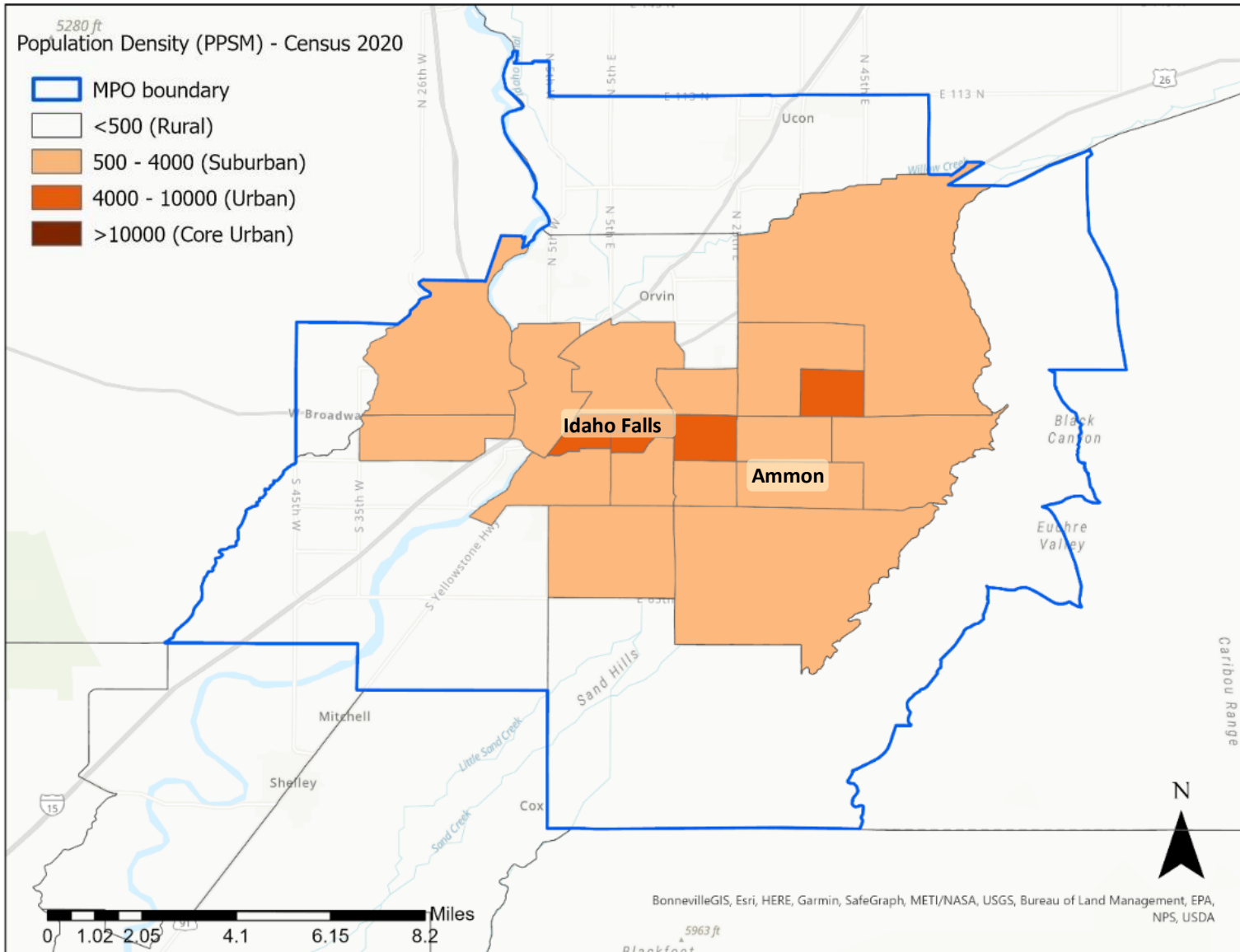


Figure 2.2 Population Density—Bonneville MPO

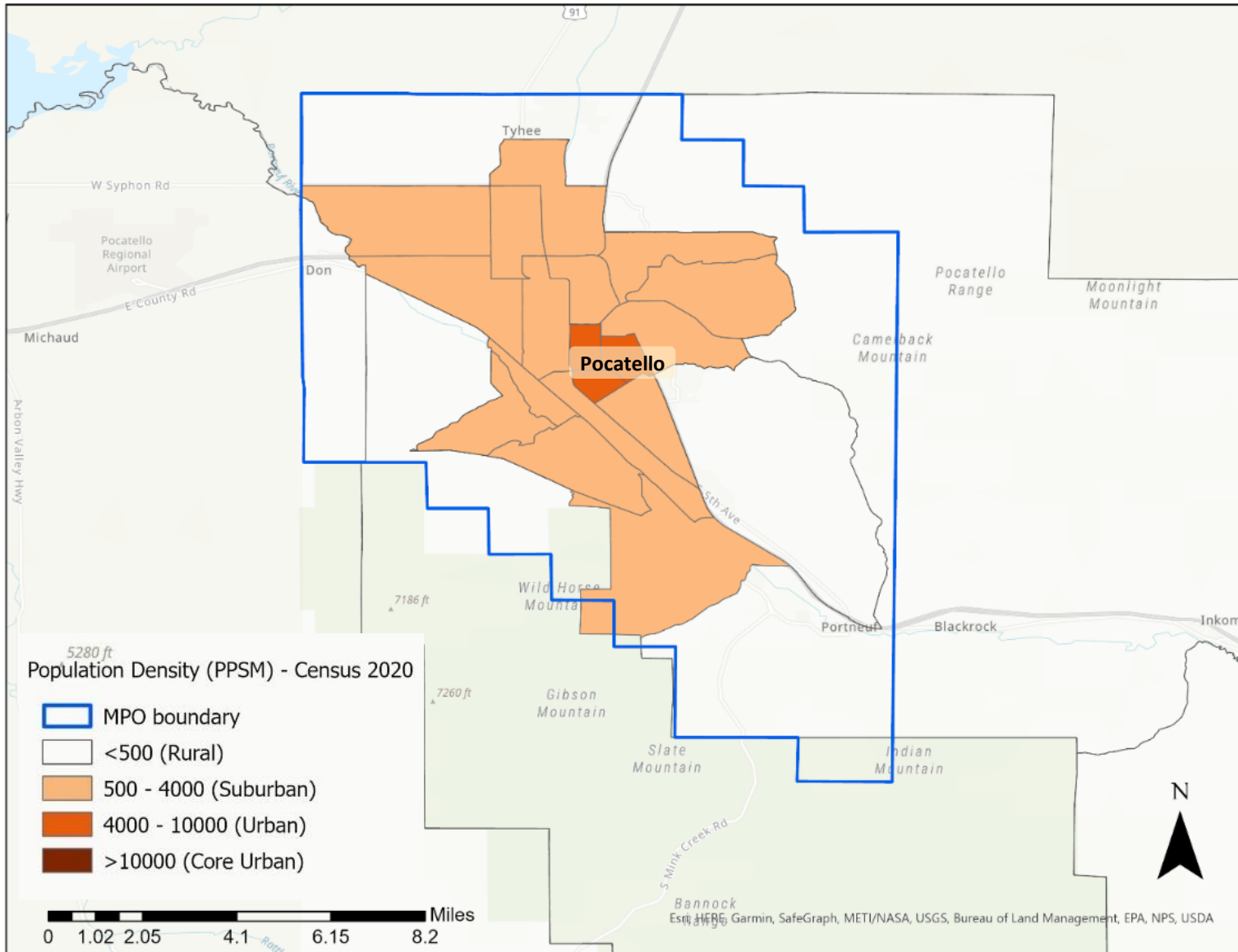


Figure 2.3 Population Density—Bannock Transportation Planning Organization (BTPO)

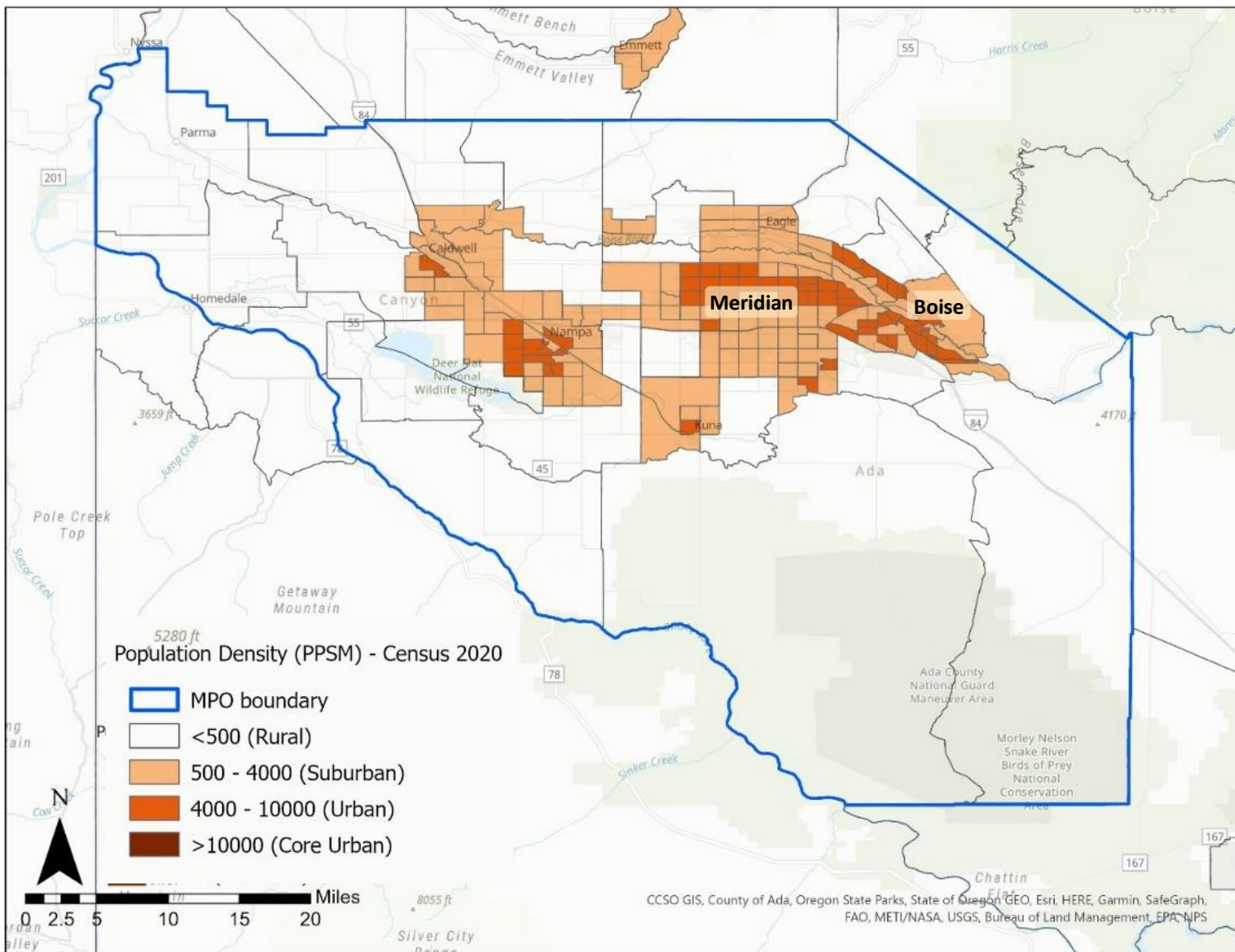
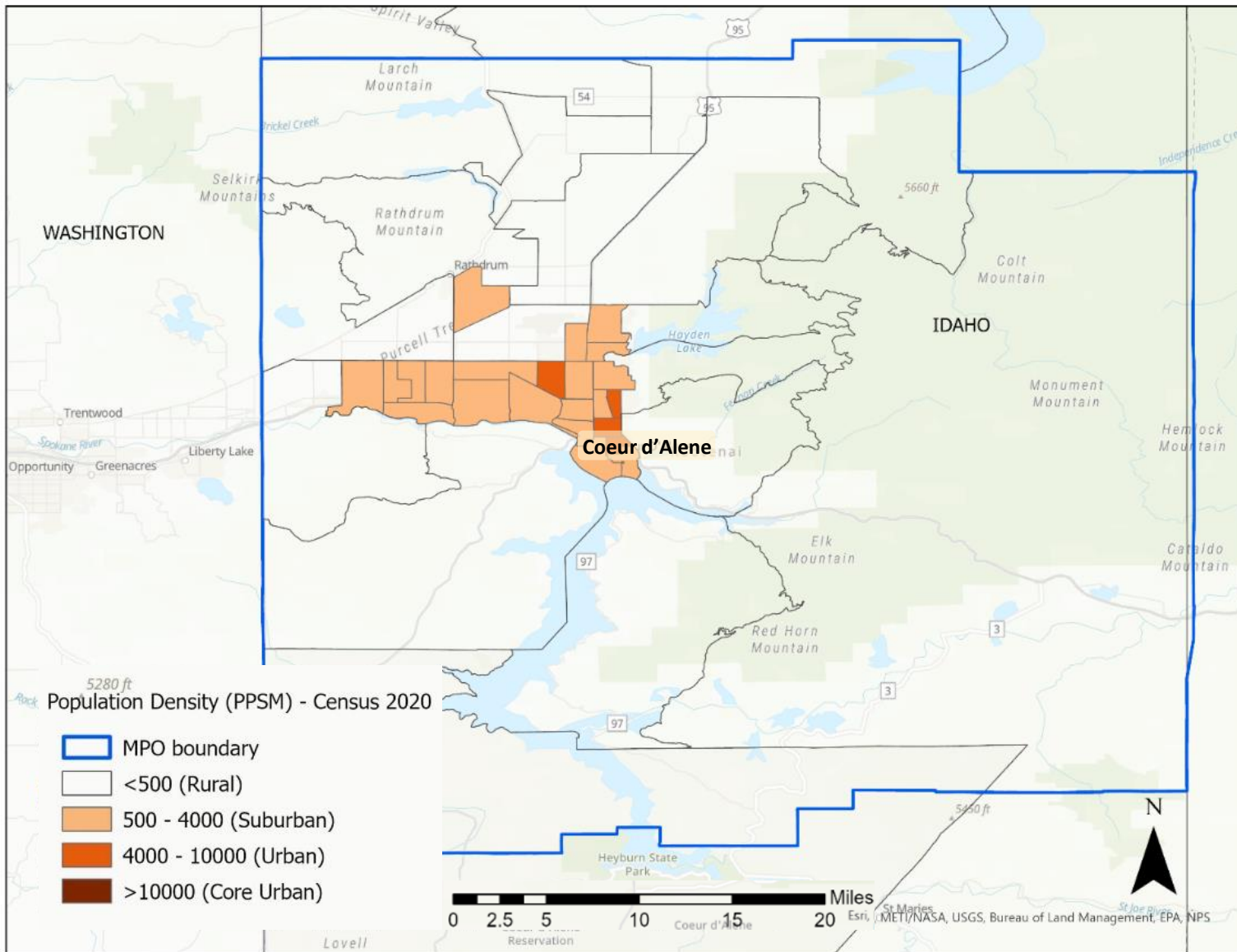


Figure 2.4 Population Density—COMPASS MPO



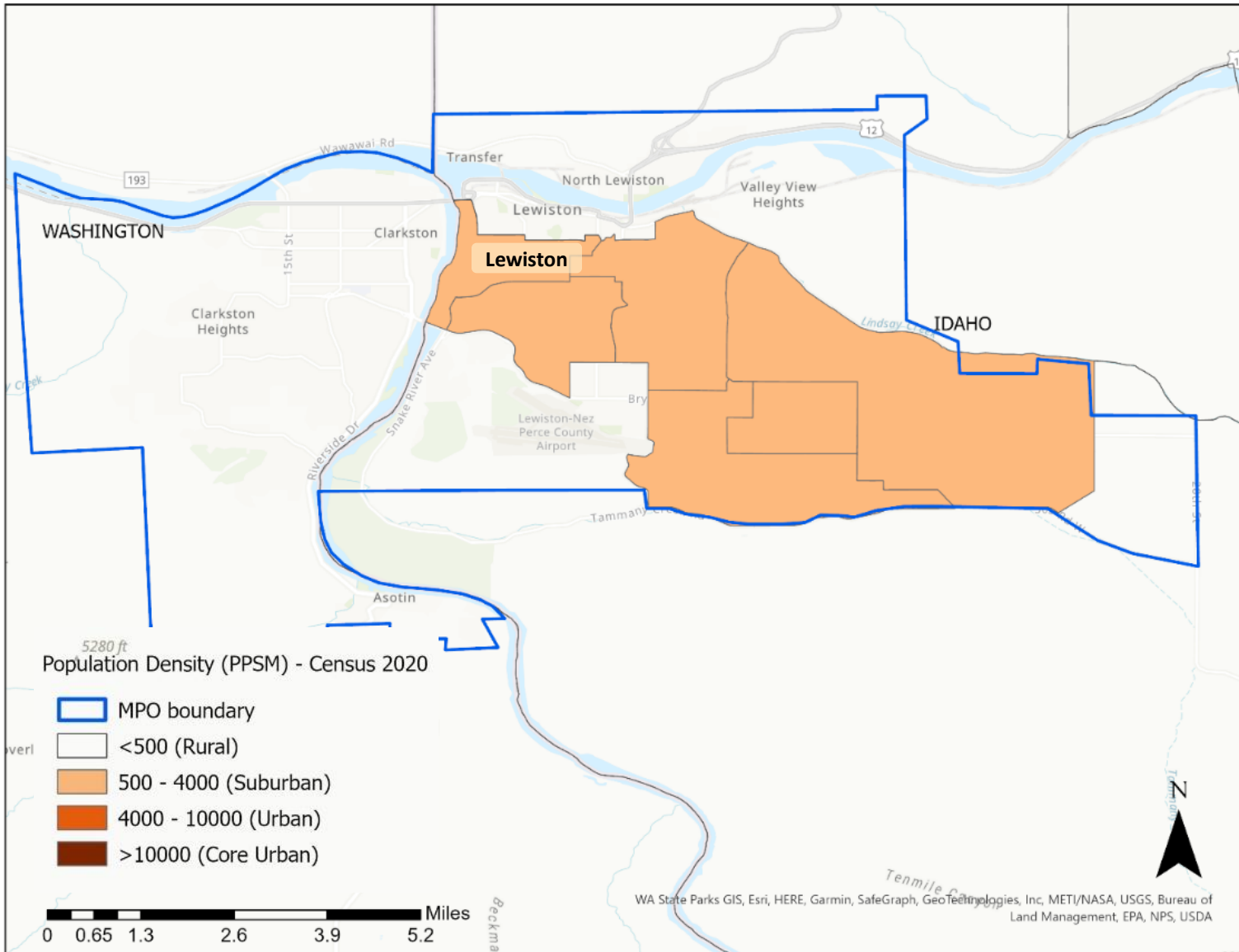


Figure 2.6 Population Density—Lewis Clark Valley MPO

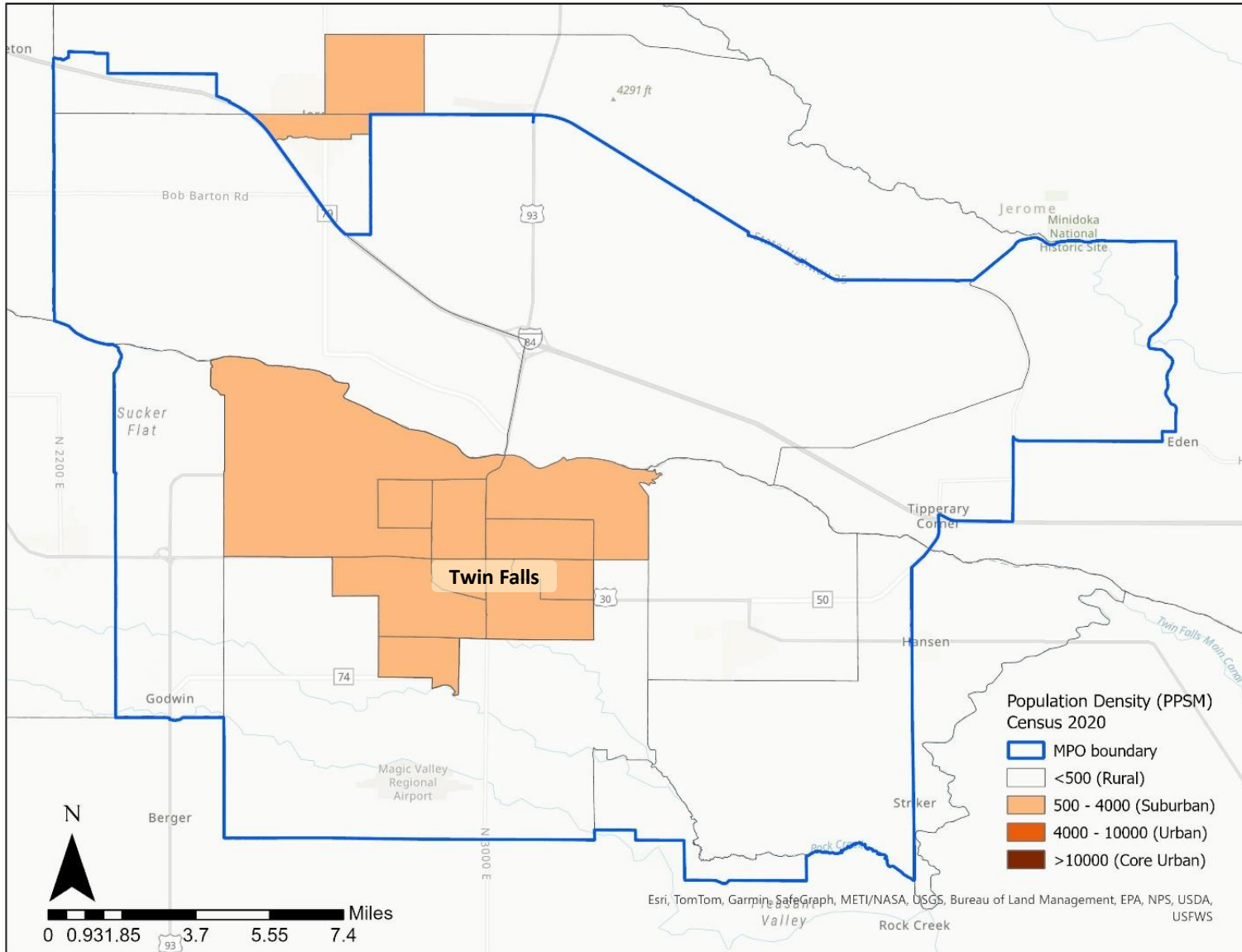
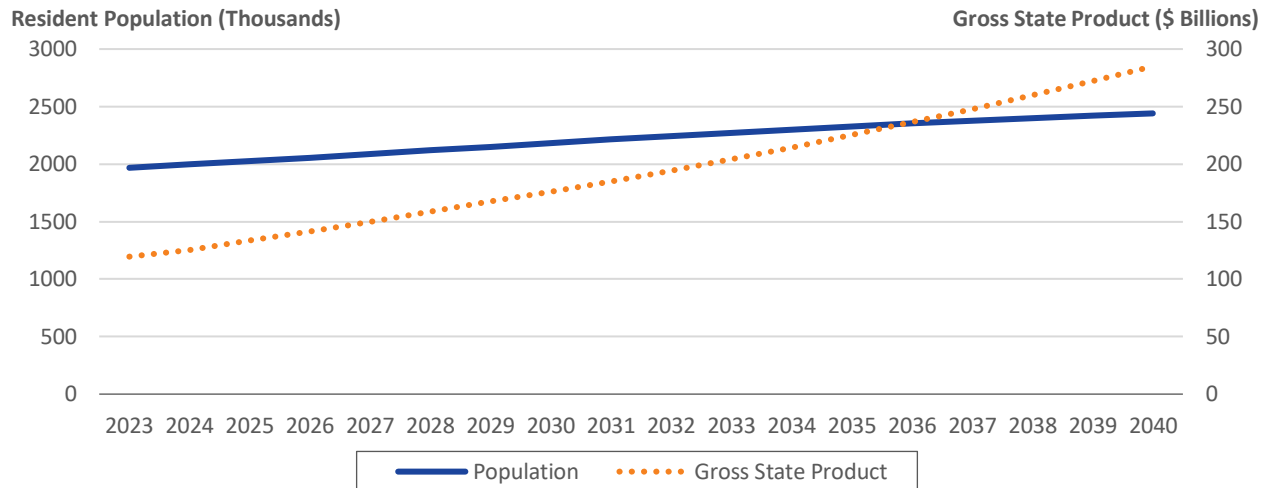


Figure 2.7 Population Density—Magic Valley MPO

Population and economic growth

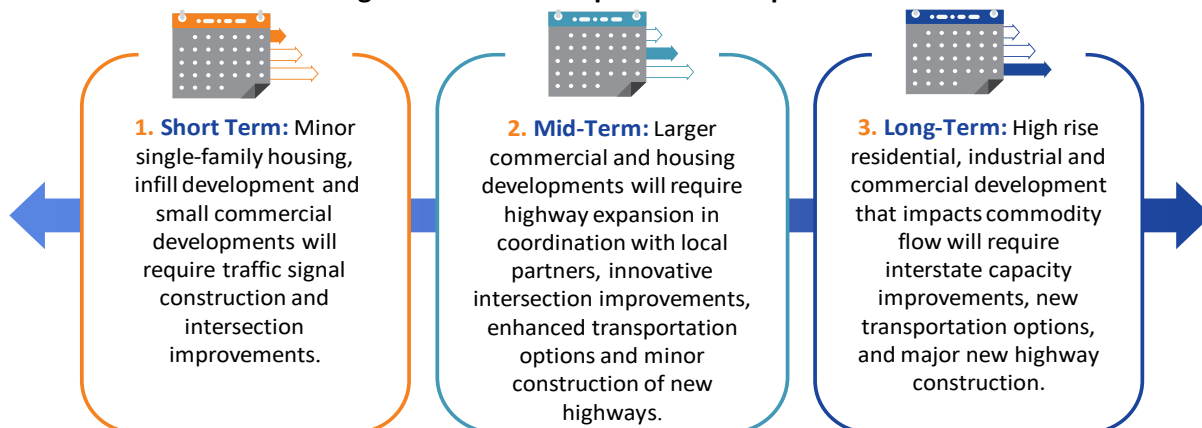
Idaho has experienced the second-highest rate of population growth in the Nation, with a 17.3 percent increase from 2010 to 2020. Forecast data, represented in Figure 2.8, indicates this trend is expected to continue, with more than a 24 percent population increase between 2023 and 2040, with economic growth forecasted to increase more than 38 percent between 2023 and 2040.¹⁴ Future growth of Idaho’s population and economy will continue to increase the demand on the statewide transportation system. Despite Idaho’s recent population increase, the state will maintain its rural status.

Figure 2.8 Population and Economic Growth



The corresponding economy also has an impact on the transportation system. The ITD 2040 Long-Range Transportation Plan (LRTP) identified short-, mid-, and long-term impacts and responses, as shown in Figure 2.9. A subset of these strategies, such as intersection improvements and signal timing, are eligible strategies for inclusion in the ITD CRS. New construction projects, for the purpose of adding new capacity, are not eligible. The ITD CRS will fund eligible and effective carbon reduction strategies that address future demand on the Idaho transportation system.

Figure 2.9 Growth Impacts on Transportation

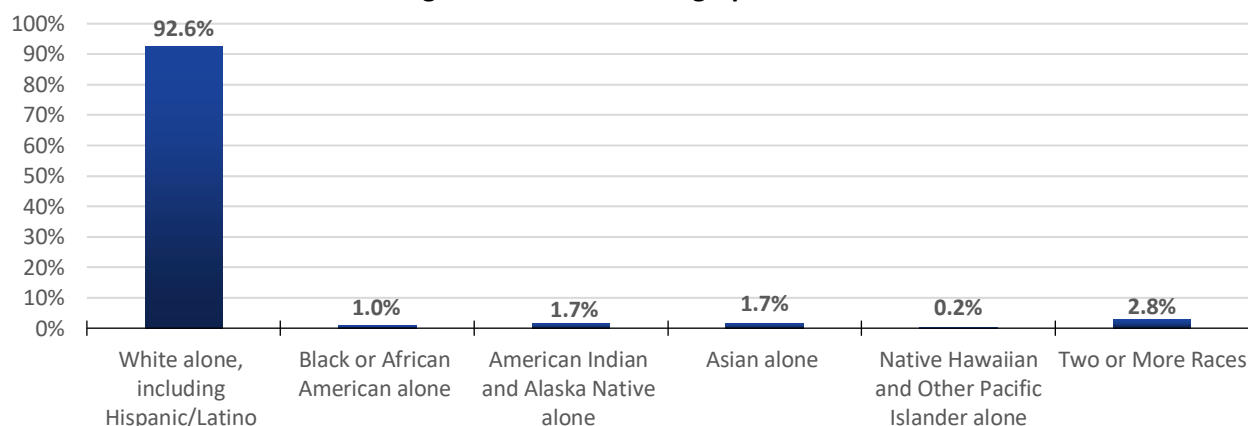


¹⁴ ITD forecasts as summarized in the ITD 2040 Long-Range Transportation Plan

Demographics and equity

The U.S. DOT Justice40 initiative emphasizes the importance of equity in transportation planning. The ITD is committed to complying with all federal requirements, including requirements in Title VI, ensuring that our programs and public involvement activities do not discriminate against disadvantaged communities. Considering equity in transportation planning and strategy development requires understanding the demographic composition and geographic distribution of the population, as shown in Figure 2.10.

Figure 2.10 Idaho Demographics 2022



In Idaho, 10.7 percent of the population is considered to be living in poverty.¹⁵ Consideration of individual strategy's potential to support access to jobs and improved multimodal travel by people with low incomes was given while considering strategies to include in the ITD CRS.

Idaho's Transportation System

The transportation system in Idaho includes roadways, rail, public transportation, bicycle and pedestrian systems, and an expansive freight network. Public transportation in Idaho includes fixed-route bus service, demand-response service, human service transportation, rideshare (i.e., carpool and vanpool), car sharing, and other public travel services.¹⁶ The Interstate highway system, consisting of I-15, I-84, I-184, I-86, and I-90, spans 612 miles in Idaho. The state has 13 U.S. Highways spanning 1,890 miles. U.S. 93 and U.S. 95 routes provide a north/south connection while U.S. 20 and U.S. 30 routes provide an east/west connection. Idaho's 68 State Highways span over 2,430 center-line miles. Combined, Idaho's highway system, including Idaho's Interstate, U.S. Highways, and State Highways, forms a 4,932 center-line mile network.¹⁷ This entire network needs to be served with supporting infrastructure for the movement of people and freight such as fuel stations, rest areas, truck stops, and weigh stations. Figure 2.11 reports commuter travel mode choices for Idaho and the U.S. (2018).¹⁸ As described in Section 2, Idaho is a large state with dispersed economic centers and population distribution. Due to this geographic context, nearly 80 percent of commute trips in Idaho involve 'Drove Alone' single-occupant vehicles.

¹⁵ Source: Census Quick Facts: <https://www.census.gov/quickfacts/fact/table/ID/PST045222>.

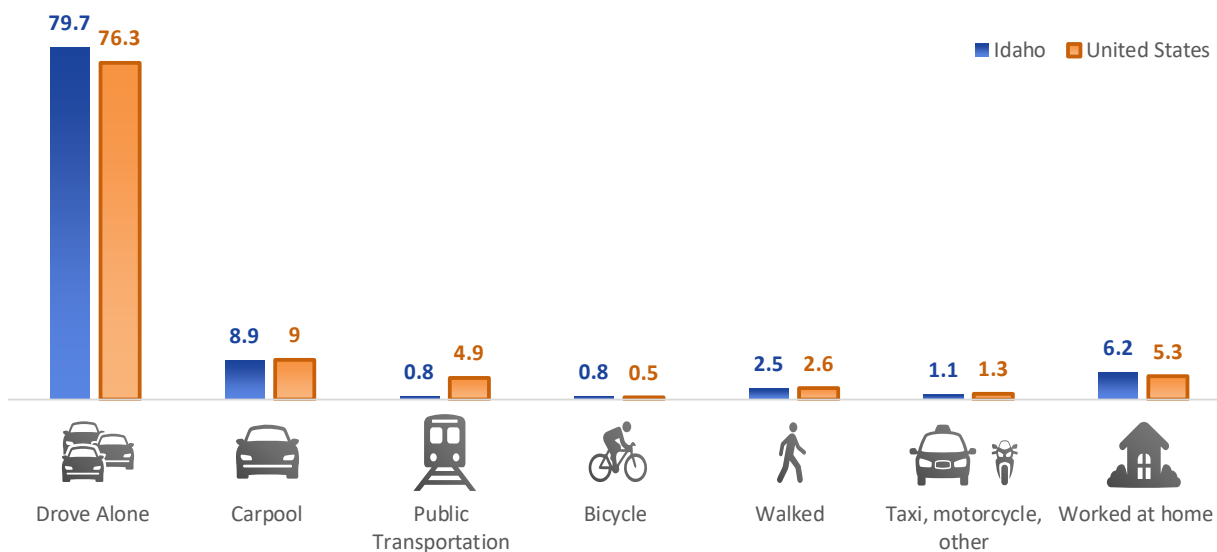
¹⁶ Idaho Long-Range Transportation Plan, 2019.

¹⁷ [Idaho Strategic Freight Plan, 2023](#)

¹⁸ Source: Bureau of Transportation Statistics. [Idaho Transportation by the Numbers](#).

Figure 2.11 Commute Mode Share, Idaho versus U.S

Percentage of Workers Over Age 16, 2018



Note: At the time of this report production, this data is the most current available

Freight movement in Idaho

Idaho’s freight network is an integral part of the state’s economic prosperity. Idaho’s multimodal freight network is a vital component in the State’s current and future economic success, servicing the more than 64,945 companies¹⁹, 924,000 employees²⁰, and \$109.55 billion in 2022 Gross Domestic Product (GDP)²¹. The state’s economy includes industries reliant upon the movement of freight. These industries utilize the State’s multimodal transportation infrastructure network for their operations as they produce, ship and receive materials, or transport goods.

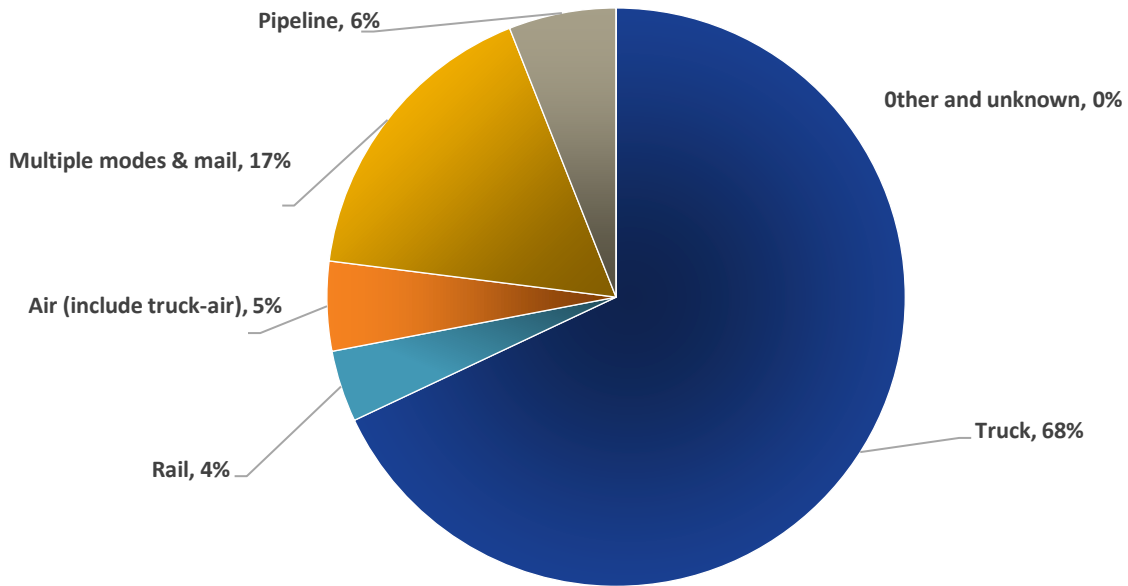
Idaho’s supply chain movements are divided among its rural regions and urban microeconomies. Rural parts of the state support agricultural and other natural resource-based industries while urban areas support industrial manufacturing and delivery of goods to businesses and households. Rural freight activities are more geographically diverse and mostly deal with production of goods. These are typically short-distance truck trips from farms, fields, mines, etc., to processing facilities. Freight leaving the processing facilities typically travel longer distances to other states. Manufacturing hubs and warehouse distribution centers are primarily concentrated around Boise/Nampa, Twin Falls, and Idaho Falls along I-84, I-15, and I-86. Growing industry in Idaho increases demand for freight shipments originating in and traveling through Idaho. A significant volume of freight travels through Idaho connecting the west coast and midwestern states. Freight movements require transportation modes that are dependable, resilient, and easily accessible at all times. Freight that cannot be transported via pipelines is transported on trucks or rail.

¹⁹ Online at: <https://commerce.idaho.gov/>

²⁰ Idaho Economic Situation Report, March 2022. Online at: <https://lmi.idaho.gov/>

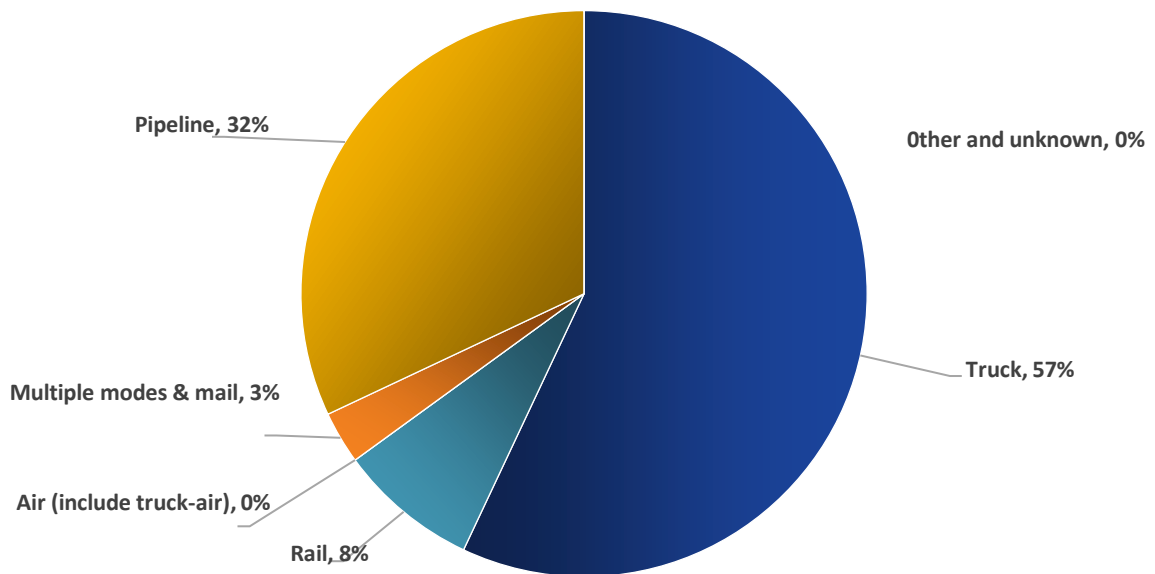
²¹ Online at: <https://usafacts.org/metrics/gross-domestic-product-gdp-by-state-idaho/>

Figure 2.12 Mode Split by Value



Trucks are integral to the operational success of every industry, as freight moving via other modes often must rely on trucks for the ‘last mile’ delivery. According to the ITD’s 2023 Strategic Freight Plan, truck freight dominates the mode split in terms of value and tonnage. In 2017, trucks carried 57 percent of all freight originating from Idaho. As shown in Figure 2.12, this was 68 percent by value of goods.²² While the truck share of tonnage is expected to remain roughly constant through 2050, as shown in Figure 2.13, absolute freight tonnage demand is expected to grow by 49 percent.²³ During 2017, intrastate trade accounted for 66 percent of Idaho’s tonnage. These are primarily short trips where trucks are the most efficient and accessible mode of transportation.

Figure 2.13 Mode Split by Tonnage



²² 2023 Strategic Freight Plan, ITD

²³ 2023 Strategic Freight Plan, ITD

Truck parking capacity and availability awareness

Freight movement by trucks, both large and small, is required to serve Idaho's diverse needs due to the rural nature of the State and its topography. Freight also travels through Idaho as I-84 and I-90 are primary routes providing connections between the western ports and inland areas.

Through the 2023 Strategic Freight Plan, 2023 Truck Parking Study, and development of the ITD CRS, the ITD has identified opportunities for reducing transportation carbon emissions. Insufficient truck parking at high-demand locations results in drivers spending additional time driving further off the planned route in search of available truck parking. Trucks idling and traveling additional mileage in search of parking consumes excess fuel and generates unnecessary emissions. Undesignated and many designated locations lack electrical plug-ins, forcing truck drivers to leave their engines or auxiliary power units running to power AC/heat and technology. The lack of available authorized truck parking results in an avoidable increase in truck Vehicle-Miles Traveled (VMT), increased fuel consumption, and loss of revenue-generating time. Thus, multiple agencies have focused on assessing truck parking shortages to understand their impact, as well as the potential benefits of developing truck parking infrastructure and communications systems to improve awareness of and better utilize existing parking capacity.

The ITD 2023 Truck Parking Study indicates there are nearly 4000 parking spaces across 118 locations within Idaho. This means the state has one of the highest number of parking spots per 100,000 truck VMT. While statewide hourly truck parking demand does not exceed capacity; many individual facilities operate beyond capacity multiple hours of the day. The highest demand for truck parking capacity occurs along the I-84, I-90, and I-15 corridors. The authorized truck parking supply in Idaho includes the following:

- 27 public rest areas,
- 77 privately-owned truck stops, and
- Ten weigh stations/Ports of Entry,
- Four Oasis truck stops

As federal hours of service and rest requirements are updated, Idaho will continue to evaluate and plan additional truck parking resources in high demand major corridors. Efficient parking availability is critical for the economy, driver safety, and carbon emissions reduction.

A comparison of potential CO₂ emission reduction strategies are described in more detail in Section 3. Truck Parking and Freight Amenities are the top priority for ITD, as they show the greatest potential for reducing carbon emissions.

Idaho On-Road Emissions

Idaho produced 37.8 million metric tons of carbon (CO₂) equivalent in 2021, according to the EPA. Transportation accounted for 11 million metric tons, or 29 percent, of all carbon emissions produced in Idaho, second to agriculture. Figure 2.14 shows the total CO₂e emission in Idaho broken out by economic sector. Idaho has seen growth in emissions across all sectors, yet Idaho's carbon emissions are lower than all surrounding states.²⁴ Figure 2.15 compares Idaho's carbon emissions gross total to its neighboring states from 1990 to 2021. Idaho's total carbon emissions in 2021 were less than 25 percent

²⁴ Online at: <https://www.epa.gov/egrid/data-explorer>.

of the national average for 2021. Figure 2.16 shows the comparison to the same states for the most recent data year, 2021.²⁵ Idaho produces fewer total overall emissions largely due to fact that more than fifty percent of the power is produced from hydropower and another fifteen percent from wind power.²⁶

Figure 2.14 Idaho Emissions by Sector 1990 to 2021

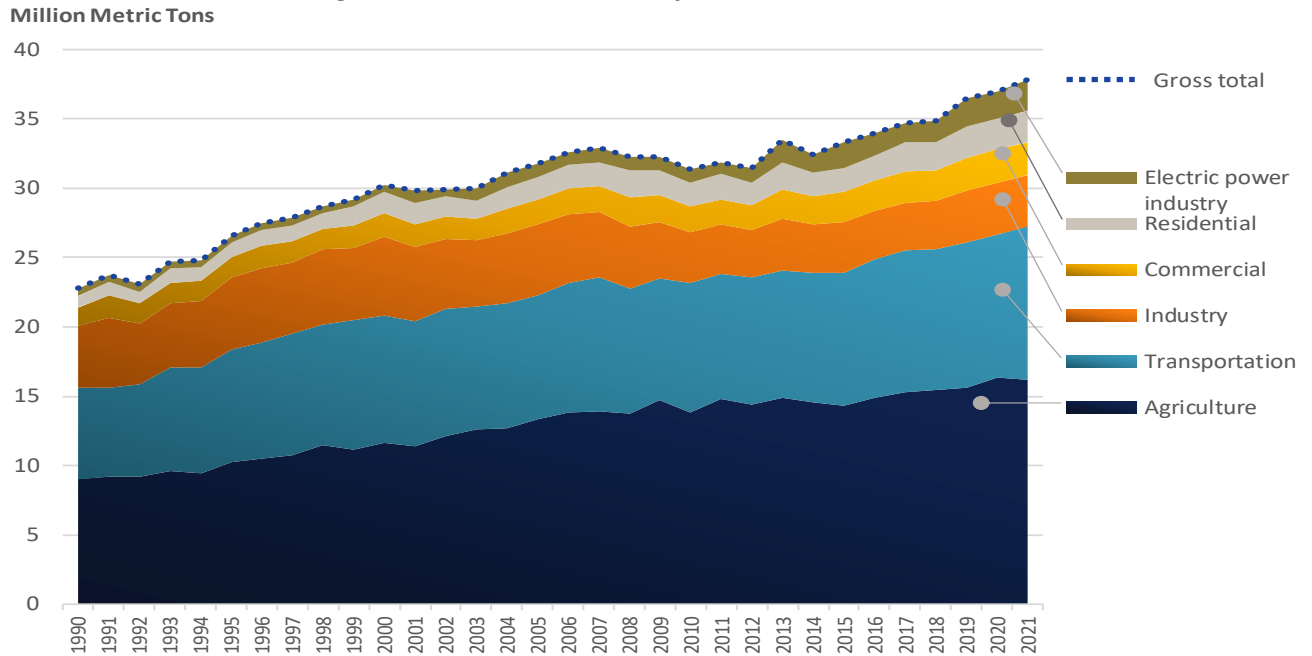
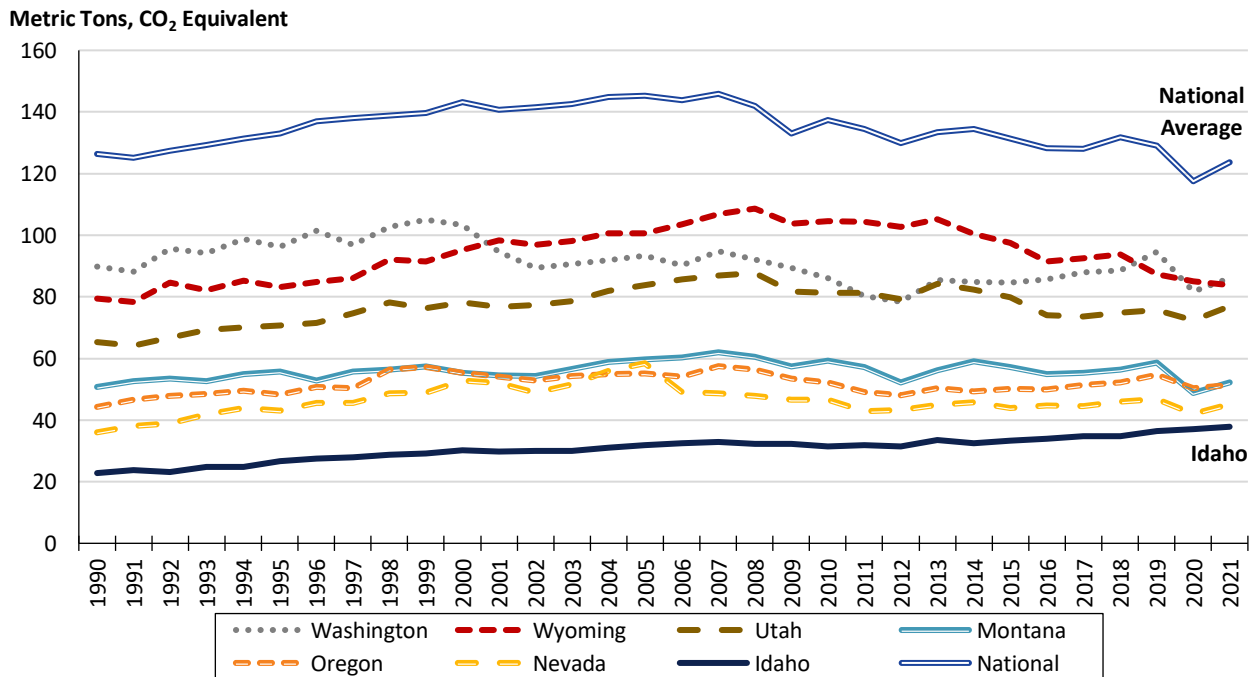


Figure 2.15 Carbon Emissions (MT CO₂ equivalent, most recent data)



²⁵ Cambridge Systematics analysis using most recent data from the [EPA Greenhouse Gas Inventory Explorer](https://www.epa.gov/ghginventoryexplorer)

²⁶ Online at: <https://www.epa.gov/egrid/data-explorer>.

Figure 2.16 2021 Carbon Emissions (MT CO₂ equivalent, most recent data)

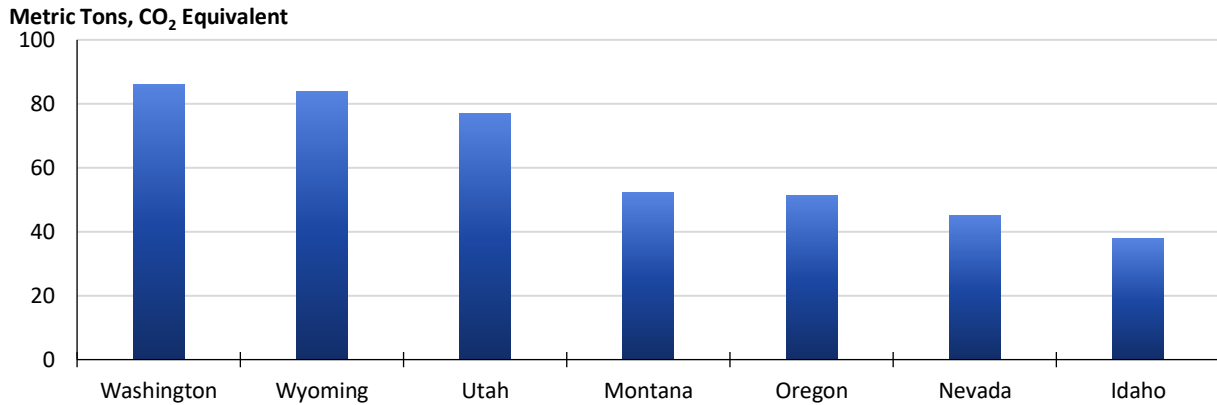
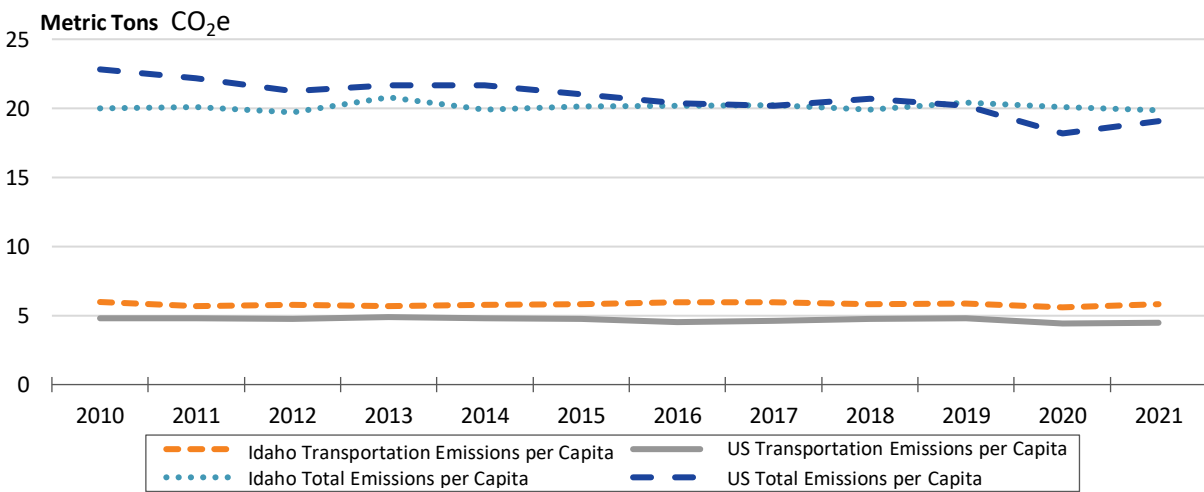


Figure 2.17 shows CO₂e production per capita in Idaho, both overall (total) and specific to transportation, relative to the U.S. average in the last 10 years.²⁷ While per capita total and transportation specific carbon emissions have remained stable, Idaho has not seen the overall reductions in recent years experienced by the rest of the nation in part due to more than 17.3 percent population growth during this time. Idaho’s total CO₂e emissions per capita, including non-transportation sources, maintained steady given the continuation of agricultural and other necessary economic activity, as many Idahoans’ travel further distances for services and commercial travel serves the dispersed regions. Idaho’s population is forecasted to increase at 1.1 percent annually through the end of the decade. During the COVID-19 pandemic, the U.S. experienced a reduction in emissions and fuel consumption as states with larger urban populations implemented restrictions on travel and quarantine protocols. Idaho’s total transportation emissions per capita remained consistent during the COVID-19 pandemic versus the lower national average and showed slightly less of a reduction most likely because of average trip distance due to dispersed economic centers and freight-based economic movements that were less impacted by COVID.²⁸

Figure 2.17 CO₂e Emissions Per Capita (MT CO₂e /Person)—Idaho compared to the U.S.



²⁷ Source: The most recent data from the [EPA Greenhouse Gas Inventory Explorer](#) and the U.S. Census

²⁸ Bureau of Transportation Statistics: [COVID-19 Related Transportation Statistics | Bureau of Transportation Statistics \(bts.gov\)](#) and [2023 FHWA Forecasts of Vehicle Miles Traveled \(VMT\) - Policy | Federal Highway Administration \(dot.gov\)](#)

Figure 2.18 and Figure 2.19 illustrate the rise in gasoline and diesel fuel consumption by the transportation sector shown in context of the population growth during the same time period which reflects a similar trend. The increase in fuel consumption can be attributed to multiple factors, including Idaho’s increase in population and economic growth. From 2012-2022, Idaho’s has seen a 17.6 percent population increase²⁹, and truck freight (in tons) has grown 24 percent, compared to US growth of just 13.5 percent.³⁰ A majority of Idahoan’s drive internal combustion engine vehicles. Most non-commercial drivers operate gasoline powered vehicles, while most freight vehicles use diesel fuel. Figures 2.18 and 2.19 demonstrate the rise in gasoline and diesel consumption is in line with population growth over that time.³¹

Figure 2.18 Idaho Gasoline Transportation Consumption

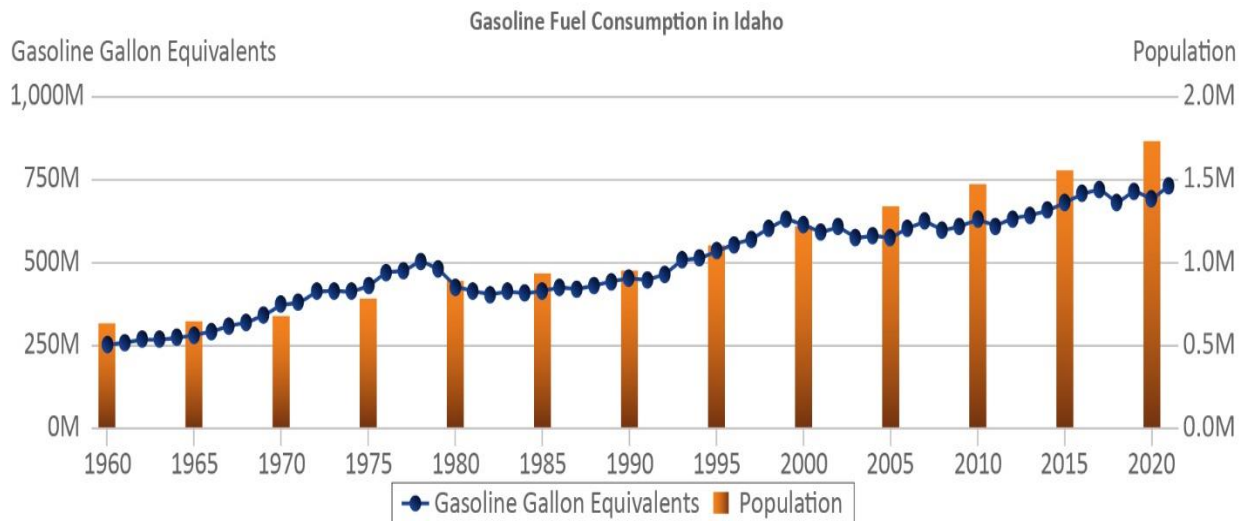
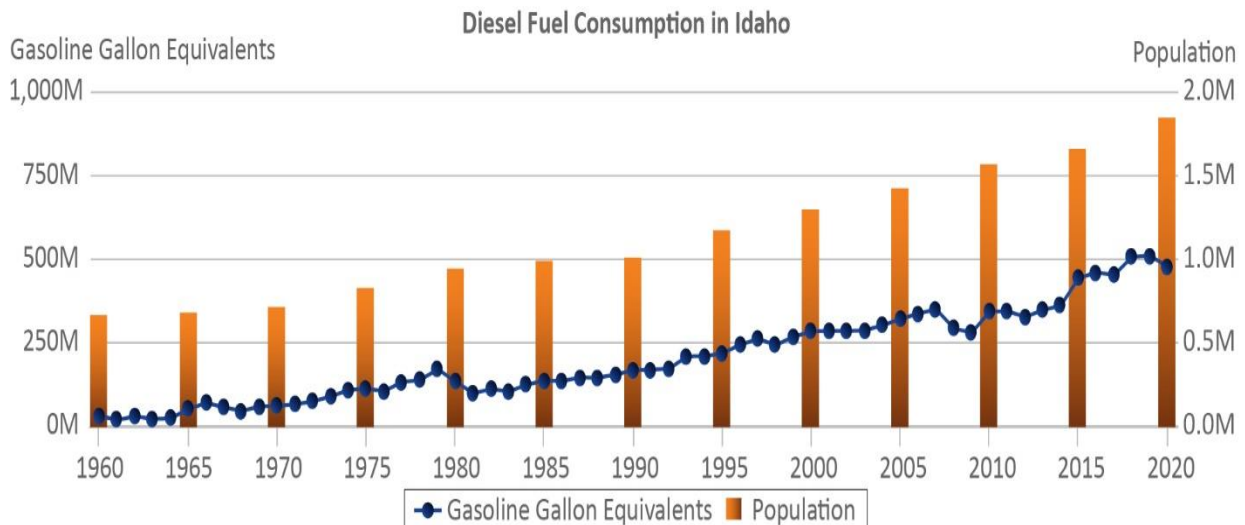


Figure 2.19 Idaho Diesel Transportation Consumption



²⁹ Online at: [Idaho Population 1900-2023 | MacroTrends](#)

³⁰ Online at: Source: [Freight Analysis Framework \(FAF\) \(ornl.gov\)](#) - Bureau of Transportation Statistics' Freight Analysis Framework

³¹ Source: [US Bureau of Economic Analysis](#) Alternative Fuels Data Center, most recent data. [Idaho Overview](#).

Current ITD Activities that Support Carbon Reduction

The ITD currently undertakes numerous planning and investment activities that promote state goals and offer lower carbon transportation solutions. These include, in priority order:

1. Truck Parking and Freight Amenities

- a. Truck Parking and Staging Areas: The ITD coordinates with partners to evaluate the need for and provide truck parking as well as features that support truck parking.
- b. Truck Parking Communication Systems: The ITD is considering a statewide system to raise and assist trucker awareness of parking location availability (availability detection and dissemination, also known as Truck Parking Information Management System or TPIMS). Presently, private partners provide these options.
- c. Weigh-in-motion (WIM) Systems: The ITD is in the process of incorporating WIM systems into all permanent Port-of-Entry (POE) locations statewide. The advanced WIM systems are capable of measuring the weight of commercial vehicles at highway speeds, enabling them to bypass the POE if all legal weights are identified. The implementation of WIM systems aims to enhance road safety and emissions reduction by ensuring that vehicles are within the appropriate weight limits, reduce traffic congestion by facilitating real-time screening processes, and minimize truck idling during wait times at facilities, thereby promoting more efficient and sustainable transportation practices.
- d. Electrical Hookups: The ITD is seeking partners to provide investment in electrical hookups for freight trucks for the purpose of powering ancillary equipment (refer units, cab power) at truck parking facilities, including truck parking at ports and at drayage and warehouse facilities. Some private parking areas already offer these amenities.

2. Traffic Operations and Technology

- a. Traffic Operations Technologies: The ITD supports use of technology to reduce congestion and corresponding idling. On local roads, the ITD and its partners are advancing signal timing and ITS solutions to reduce idling caused by waiting at traffic signals. Example project types include signal timing optimization, adaptive signals, Intelligent Transportation Systems (ITS), traffic operational improvements, and signage such as dynamic/variable message boards.
- b. Other Technology Solutions: The ITD continues to identify and support other opportunities to implement technologies that improve the transportation system, such as the 511 Information system.

3. Other Transportation Emissions Reduction Projects

- a. Active Transportation: The ITD's Bicycle and Pedestrian Program is primarily focused on statewide coordination and long-range planning. It supports significant facilities included as part of major highway projects and locally sponsored programs with technical information. The ITD works with local governments to identify potential funding sources for projects such as sidewalks, separated pathways, lane shoulders, and promoting options to walk or bike to work.
- b. Zero Emission Vehicles: ITD is working to identify potential EV charging and alternative fuel locations near well-traveled corridors in the state. The National Electric Vehicle Infrastructure (NEVI) Program will strategically deploy electric vehicle (EV) charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability.
- c. Supporting Transportation Demand Management (TDM)/Vanpool: The ITD's "Share the Ride Idaho" initiative connects commuters with each other and public information. Riders can use it to connect with each other to carpool or find the best route, locate a park-and-ride lot, and map their route.
- d. Public Transportation (PT): ITD-PT administers the Idaho's Rural Transportation Assistance Program (RTAP). ITD-PT is committed to fostering a safe, mobility focused public transportation program throughout Idaho that promotes economic opportunity and growth. ITD-PT budgets the funds on an annual basis and offers scholarship opportunities until funds are exhausted.
- e. Rail: The ITD transportation system includes freight and passenger rail service. Through the ITD Rail Plan and associated activities, the ITD plans for implementation strategies to enhance the movement of freight and is exploring passengers by rail within and through Idaho. The ITD, Federal Railroad Administration (FRA), and surrounding states, are participating in the Amtrak Daily Long-Distance Service Study to return passenger rail service between Denver-Salt Lake City-Boise-Portland-Seattle.
- f. Barges: The Port of Lewiston, located 465 river miles from the ocean, is the most inland seaport on the West Coast. It is strategically located to link the Inland Northwest to global trade markets by connecting to the Columbia Snake River System, part of American's Marine High-way Corridors. Moving freight and commodities by barge is a highly cost-effective method of transporting freight.

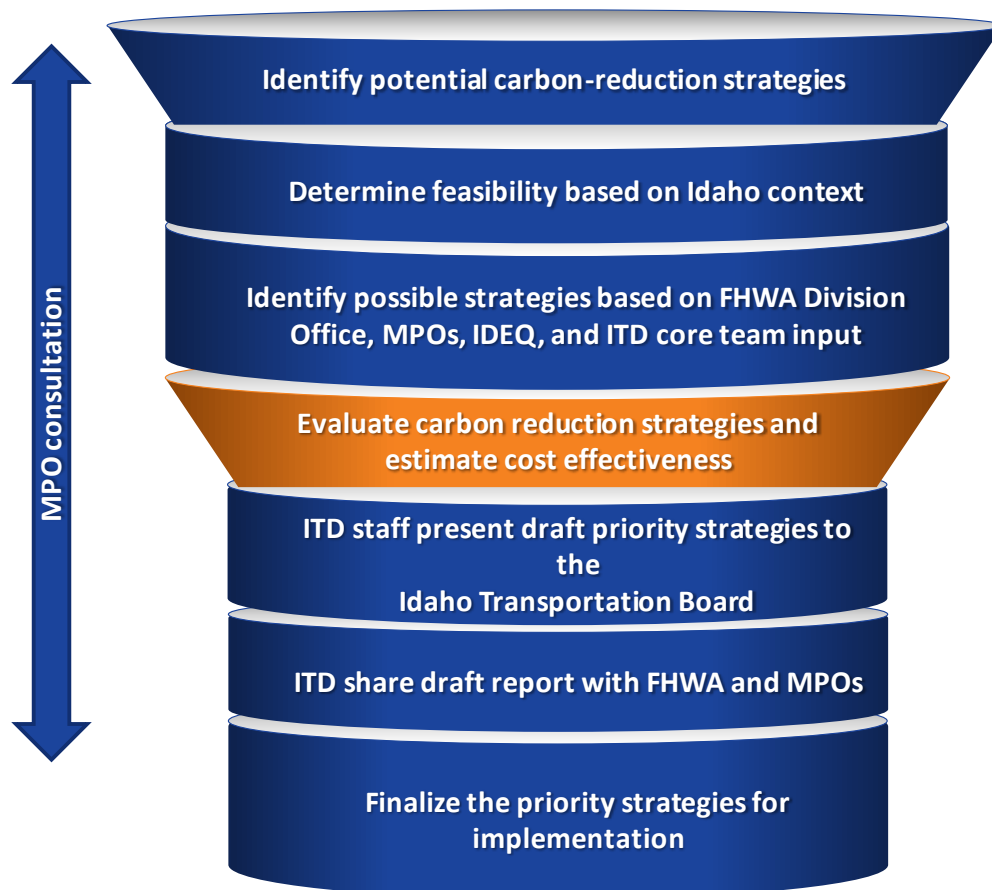
3. CRS Development Process

Overview

The ITD developed the 2024 ITD CRS by following a series of steps to identify, evaluate, and prioritize carbon reduction strategies for the state. As visualized in Figure 3.1, the ITD applied the following process:

1. Identify the full range of potential carbon-reduction strategies.
2. Determine strategy feasibility based on Idaho’s unique characteristics and rural context.
3. Identify strategies based on MPO, IDEQ, ITD, and other stakeholder input.
4. For the subset of feasible and priority strategies, evaluate the potential carbon reduction impact of each strategy using the draft Transportation Evaluation and Carbon Reduction Tool (TEA-CART) (high, medium, low impact).
5. Estimate the cost effectiveness of each strategy.
6. Finalize priority strategies based on the discussions and analysis conducted through steps 1–5.

Figure 3.1 ITD CRS: Development Process



Stakeholder Engagement

To develop the ITD CRS, the ITD engaged with stakeholder groups to gather, consider, and integrate stakeholder feedback into the CRS. Stakeholders included Idaho’s MPOs, ITD Planning team, ITD Public Transportation Office, Idaho Department of Environmental Quality, ITD District Engineers, and the Idaho Transportation Board.

MPO consultation

Consistent with federal guidelines, the ITD CRS was developed in consultation with Idaho’s existing MPOs. The ITD consulted the MPOs during the development of the CRS through a survey of MPOs priorities regarding carbon reduction strategies, and a series of meetings, as detailed in Figure 3.2. The ITD’s consultant team also reviewed the MPOs pre-existing short- and long-term transportation plans for priority strategy alignment. The ITD considered the MPOs priority strategies and comments during the development of the ITD CRS. ITD staff presented the draft priority strategies, as an information item, to the Idaho Transportation Board (ITB) in September 2023.

Figure 3.2 ITD CRS: MPO Consultation Meetings



After the ITB provided feedback, ITD staff refined the priority strategies. An updated version of the CRS was shared with the MPOs to communicate the strategies that are eligible for funding and the project selection process. The ITD will continue to communicate with the MPOs to discuss implementation of the CRS and project selection and funding.

Public Engagement

When considering strategies to include in the ITD CRS, the ITD considered findings from the public outreach conducted during the ITD 2040 Long-Range Transportation Plan (LRTP) outreach. In a statewide survey about priorities, ITD noted participants ranked ‘Congestion and Delay Relief’ as the top priority area in need of improvement. ‘Preservation and Maintenance’ were ranked most frequently. Top feedback from industry stakeholders emphasized the importance of engaging stakeholders early and often during planning and project development and considering all modes of transportation. The ITD also received feedback about the draft Carbon Reduction Program (CRP) during the annual public comment period for the Idaho Transportation Investment Program (ITIP). Projects selected to receive CRP funding will complete public engagement as defined by federal law as cited in the federal CRP guidance through the annual ITIP program update.³²

Strategy Identification and Prioritization Process

Strategy identification, evaluation, and analysis

Identifying strategies

To identify potential carbon reduction strategies for inclusion in the ITD CRS, the ITD conducted a review of the eligible strategy types and compared those to the types of projects included in the state’s LRTP and ITIP. The ITD also reviewed peer DOT draft CRSs and industry best practices for identifying carbon reduction strategies. Another substantial resource for identifying potential strategies was the (draft) TEA-CART tool, developed by Cambridge Systematics for the Georgetown Climate Center. The tool reflects years of research gathering data to evaluate potential strategies for carbon reduction impact and cost effectiveness.

Examining strategy feasibility and relevance to Idaho context

Based on the many potential strategies, the ITD collaborated with MPOs and IDEQ partners to examine which strategies were most applicable to Idaho. Given regional differences, some strategies, such as transportation demand management, are more appropriate to certain regions than others. Strategies deemed unfeasible or irrelevant to the Idaho context were removed from consideration during the next step of analysis—examining the anticipated impact of investing in strategies based on Idaho’s transportation system, demand, and geographic context.

Prioritizing strategies to be analyzed

The ITD identified several potential statewide strategies, conducted a survey to obtain input on priorities from the MPOs, ITD districts, and public transportation partners, and solicited additional input on priority strategies during a series of meetings with the MPOs and IDEQ partners. ITD compared the strategies to the stated goals and priorities of the ITD and MPO planning documents to ensure

³² FHWA, *Carbon Reduction Program Implementation Guidance*, April 21, 2022, https://www.fhwa.dot.gov/environment/sustainability/energy/policy/crp_guidance.pdf.

consistency in planning priorities. The draft TEA-CART tool was applied to potential strategies to gain analyze the potential emissions reductions and associated strategy investment costs.

MPO and ITD Focus Areas

The ITD CRS was developed to align with and promote the existing state and regional focus areas. Each entity indicated which focus areas were important to their region. Those marked with an ‘X’ are endorsed by the ITD and individual MPOs, as shown in Table 3-1.³³ The ITD and MPOs have many overlapping priorities, however, it is also reasonable that regionally focused agencies with varying geographies, demographics, and economic contexts would have some varying priorities.

Table 3-1 ITD Long-Range Transportation Plan and MPO Focus Areas

Goal Category	ITD	Bannock MPO	Bonneville MPO	COMPASS MPO	Kootenai MPO	Lewis-Clark MPO
Promote/Improve Freight	X		X	X	X	
Congestion Reduction/Protect Operations/Technology	X		X	X		
Infrastructure State of Good Repair	X	X	X	X		
Promote/Improve Transit		X		X	X	X
Active Transportation/Shared Mobility	X	X		X	X	X
Safety/Public Health	X	X	X	X		
Environmental Stewardship/Resiliency				X		
Land Use Sustainability/Efficiency		X		X		X
Economic Vitality	X			X		X
Project Efficiency			X		X	

These potential strategies were developed as part of the initial brainstorming session with stakeholders, and they show the diverse perspectives and range of potential focal areas even among the individual MPOs.

Analyzing potential strategies—TEA-CART

The ITD used a beta version of the TEA-CART tool (v1.7, August 2023) to evaluate strategies. TEA-CART is a comprehensive and dynamic tool aimed at assisting states with selecting and prioritizing transportation capital program investments to effectively support carbon emissions reduction. The tool is designed to accept inputs typically available during the programming process. It provides key outputs, including:

- A baseline inventory and forecast of CO₂e emissions;
- CO₂e emissions reduction impacts of a capital program or a hypothetical set of capital projects; and
- Information on cost effectiveness of various project types.

³³ At the time of consultation, MVMPO, had not officially formed. MVMPO established December 07, 2023.

TEA-CART is a sketch planning tool. It is designed to accept simple inputs, typically available at the long-range planning or programming stage, characterizing the number, size, context, and type of transportation projects that could reduce CO₂e emissions. As such, TEA-CART relies on data that is typical for projects of a given type, including their ability to reduce carbon emissions and their cost to implement. In practice, individual projects may result in a wide range of CO₂e effects and have varying ranges of costs to implement. For more detailed, project-specific evaluation, users may want to refer to project-specific tools such as the [FHWA Congestion Mitigation and Air Quality Program \(CMAQ\) Emissions Calculator Toolkit](#).

While not every transportation strategy is included in TEA-CART, most of the strategies identified by the ITD for evaluation were already included in the tool. The tool is based on national averages for many benchmarks and state specific information where available. ITD was able to gather additional Idaho specific cost estimates for some strategies which were then input into the tool to refine its applicability to the Idaho context.

Truck Parking and Freight Amenities were not included in the TEA-CART tool analysis. Addressing truck parking included special aspects, such as providing electrification at truck stops for the purpose of powering ancillary equipment (refer units, cab power) so that trucks can use electricity while parked for many hours rather than running their engines. With consultant support, the ITD was able to gather information on the carbon reduction impact and project costs related to various aspects of truck parking. The tool was not applied to specific projects to get exact results, but rather to strategies to get approximate results to understand if the strategies were high, medium, or low or ineffective in reducing carbon, and their cost effectiveness in reducing carbon.

Table 3-2 provides an overview of the TEA-CART results for the strategies analyzed for potential inclusion in the ITD CRS. TEA-CART uses national averages and general inputs to provide the suggested results. However, in the Idaho context the tool may be overestimating the reduction in CO₂ emissions for “New Bicycle Lanes – Urban” given that even the more urbanized areas within the state are still somewhat rural in nature, and with amenities spread out and seasonal conditions that discourage active transportation modes.


Table 3-2 Summary Results of Strategy Analysis using TEA-CART


Strategy	Sub strategies	Total \$	Unit	Total Units	MT CO ₂ e Change (Annual)
Trucking/Freight	TPIMS System	1,000,000	# spaces covered	68	High Reduction
	Truck Parking	1,000,000	# new spaces	36	Medium Reduction
	Truck Stop Electrification	1,000,000	# new TSE units	133	High Reduction
	Truck DC Fast Chargers (350 kW)	1,000,000	# chargers	6	High Reduction
Traffic System Management and Operations (TSMO)	Arterial Signal Retiming—Urban	100,000*	# signals retimed	33	High Reduction
	Arterial Signal Retiming—Rural	100,000*	# signals retimed	33	High Reduction
	Local Roundabout Conversion—Urban	1,000,000	# roundabout conversions	3	Medium Reduction
	Local Roundabout Conversion—Rural	1,000,000	# roundabout conversions	3	Medium Reduction
	Other TSMO	1,000,000	N/A	N/A	N/A
Active Transportation	New Bicycle Lanes—Urban	1,000,000	# two-way miles	24	High Reduction
	New Bicycle Lanes—Suburban	1,000,000	# two-way miles	24	Medium Reduction
	New Protected Bicycle Lanes—Urban	1,000,000	#two-way miles	5	Medium Reduction
	New Protected Bicycle Lanes—Suburban	1,000,000	#two-way miles	5	Low Reduction
	New Sidewalk—Urban	1,000,000	#two-way miles	2	Low Reduction
	New Sidewalk—Suburban	1,000,000	#two-way miles	2	Low Reduction
Public EV Charging	Public DC Fast Chargers (50 kW)	1,000,000	# chargers	18	High Reduction
Public Transportation	Added Urban Fixed-Route Service	1,000,000	# new vehicles operated in max service	1	Carbon Increase
	Added Rural Fixed-Route Service	1,000,000	# new vehicles operated in max service	1	Carbon Increase
	Urban Bus Electrification	1,000,000	# bus converted	1	Low Reduction
	Rural Bus Electrification	1,000,000	# bus converted	1	Low Reduction

4. ITD Priority Carbon Reduction Strategies

As described in Chapter 3, the ITD coordinated with partners, consulted with the Idaho MPOs, and examined the potential carbon reduction benefits and cost effectiveness to reduce carbon emissions of a wide range of strategies. Table 4-1 presents the ITD’s priority carbon reduction strategies and project types that will be eligible for federal CRP funding until the strategy is updated.

Table 4-1 Summary of the ITD CRS Strategies and Project Types

 Carbon Reduction Strategy: Truck Parking and Freight Amenities Improvements		
Project Types	Primary Function and Benefits	Transportation Emissions Benefit
Truck Parking and Staging Areas.	<ul style="list-style-type: none"> Supply chain efficiency. Safety - providing designated areas to park. 	<ul style="list-style-type: none"> Reduces engine idling. Reduces unnecessary vehicle-miles traveled (VMT).
Electrical hookups to powering ancillary equipment (refer units, cab power) at truck parking facilities, including truck parking at ports and at drayage and warehouse facilities.	<ul style="list-style-type: none"> Allows trucks to turn off engine and maintain air conditioning, heating, and other electrical functioning while parked and resting. 	<ul style="list-style-type: none"> Reduces engine idling emissions during hours-long parking sessions. Reduces unnecessary vehicle-miles traveled (VMT).
Truck parking communication systems (availability detection and dissemination, also known as Truck Parking Information Management System or TPIMS).	<ul style="list-style-type: none"> Online communications system to provide real-time information to truck drivers about available parking, thereby maximizing utilization of existing truck parking capacity. Sensors, processing center, media sources for truckers. 	<ul style="list-style-type: none"> Potential for reduced VMT and reduced idling while looking for parking.

 Carbon Reduction Strategy: Traffic Operations and Technology Solutions		
Project Types	Primary Function and Benefits	Transportation Emissions Benefit
Signal timing optimization.	<ul style="list-style-type: none"> Optimizing traffic signals along corridors to be in sync to vehicles traveling at certain speeds. Improves overall speed and reliability of traffic flows. Reduces congestion and idling. Improves safety by encouraging drivers to maintain moderate speeds. 	<ul style="list-style-type: none"> Reduces emissions through decreased idling and congestion and smoother flow.
Adaptive signals.	<ul style="list-style-type: none"> Sensor or video triggered signals improve traffic flow and reduce idling during off-peak hours or at less busy intersections. 	<ul style="list-style-type: none"> Reduces emissions by eliminating unnecessary idling at less busy intersections.



Carbon Reduction Strategy: Traffic Operations and Technology Solutions

Project Types	Primary Function and Benefits	Transportation Emissions Benefit
Intelligent Transportation System (ITS) and signage.	<ul style="list-style-type: none"> Electronic signage as well as app-based info systems alert drivers to congestion and encourage use of alternate routes or delayed trips. Improves speed and reliability of traffic flows by dispersing traffic onto appropriate alternate routes. 	<ul style="list-style-type: none"> Reduces emissions through reduced congestion and idling.
Weigh in Motion	<ul style="list-style-type: none"> WIM systems measure the weight of commercial vehicles at highway speeds. Ensuring vehicles are within the appropriate weight limits, reduce traffic congestion by facilitating real-time screening processes, and minimize truck idling during wait times at facilities 	<ul style="list-style-type: none"> Reduction in idle times during inspections Enhance road safety and emissions reduction

Other potential carbon reduction strategies include zero emission vehicles, carpool, transit and electrification of transit, sidewalks, pathways, lanes shoulders, and passenger and freight rail.

EV Considerations

The ITD recognizes that the electrification of freight and passenger vehicles and charging infrastructure are effective strategies to reduce carbon emissions. However, they are not included as a priority in the ITD CRS due to parallel work and funding expectations for this strategy area. The ITD partnered with the Idaho Office of Energy and Mineral Resources (OEMR) and the IDEQ to develop the State of Idaho Electric Vehicle (EV) Infrastructure Baseline Plan to strategically plan for EV charging development and a process for entities to apply directly for National Electric Vehicle Infrastructure (NEVI) formula funds. The Siting, Feasibility and Access Study will develop a strategic approach to funding EV charging station deployment that aligns with the vision and goals of Idaho’s program. Currently, there is no source of state funding dedicated to EV charging that could provide a federal share match for NEVI. It is expected that stations built through the NEVI Program will be funded through public-private partnerships.

5. Implementation: How the CRS will be used in the planning process

By applying the ITD CRS to prioritize projects for CRP funding, the ITD will support implementation of the federal CRP into state planning. The CRS has been developed in a manner such that it is aligned with the ITD planning documents and will be integrated into the planning processes. This section provides information on:

- Integration with other planning documents and processes at the state and regional level.
- Annual project selection considerations.

CRS Integration into Planning and Programming

The ITD CRS will become an integrated part of state and regional level planning processes. As the state and regional LRTPs are updated, the plans can reflect which types of projects, programs, and policies align with and implement the ITD CRS. As programming documents are updated, the State and MPOs TIPs will identify the CRP as a funding source for projects, as selected based on the ITD CRS.

The ITD CRS was developed to align with the state vision and goals, identified in the ITD's 2023-2026 Strategic Plan and 2040 Long-Range Transportation Plan, while advancing the national goals of the CRP. During the ITD CRS development process, the MPOs' goals were reviewed against potential strategies, as shown in Table 3-1. Potential CRS strategies were evaluated against the State and MPOs goals to ensure both sets of goals informed the identification and prioritization of strategies for inclusion in the CRS.

Potential CRS strategies were evaluated against the State and MPOs goals to ensure both sets of goals informed the identification and prioritization of strategies for inclusion in the CRS

Selecting Projects to Fund

The ITD will coordinate with the MPOs and local jurisdictions to identify projects or parts of projects eligible for CRP funding in the Large and Small Urban categories. ITD will select the eligible projects for CRP funding in the Rural and Any State Area. The ITD will select eligible projects for CRP funds based on the strategies and project types identified in Section 4.

Currently, ITD plans to prioritize truck parking and freight amenities, traffic operations and technology, and other potential carbon reduction strategies. As the analysis detailed in this strategy shows, those project types provide the highest reduction in carbon emissions for Idaho. With remaining CRP funding, and in an approach consistent with federal legislative requirements, ITD will coordinate with MPOs and LHTAC to identify projects or parts of projects that meet eligibility criteria.

There is only one Transportation Management Area (TMA) within the State of Idaho, the cities of Boise, Meridian and Eagle which is represented by the Community Planning Association of Southwest Idaho

(COMPASS). As stated in the [US Code of Federal Regulations \(CFR\) 23 U.S.C. 134\(k\)\(5\)](#), the TMA selects the projects within their regional boundaries.³⁴ COMPASS plans to develop a regional CRS in federal fiscal year 2024.

As required by federal legislation, ITD will coordinate with the MPOs and local jurisdictions to identify projects or parts of projects eligible for CRP funding in the Large Urban and Small Urban categories.

At the local level, jurisdictions will identify transportation solutions to address the priority local transportation needs. The MPOs will include many of these projects in regional LRTPs and TIPs. As the localities and MPOs update plans and programs these projects will be considered by the ITD, recognizing that projects put forth for funding consideration will vary based on the community and geographic context, population density, land use, and identified transportation needs as documented in local and regional plans. ITD staff will review these projects to determine how they respond to a series of criteria, such as:

- Alignment with the ITD CRS priority strategy categories and project types
 - ITD prioritized strategies are specifically tailored to meet the unique needs of the State, considering its geography, economy, total population, and population dispersion.
- Carbon reduction impact
 - As many forms of on-road transportation produce CO₂e emissions, it is through strategic transportation planning and programming that ITD and its planning partners can identify, fund, and implement strategies to reduce these emissions statewide.
- Cost effectiveness
 - ITD has prioritized strategies to maximize the utilization of federal funding while improving the transportation system.
 - Potential to leverage CRP funds by companioning with other federal funding sources.
- Federal funding apportionment to urban and rural or statewide contexts³⁵

Apportionment Breakout				
TMA (Over 200K)	Large Urban (50K–200K)	Small Urban (5K–50K)	Rural (Under 5K)	Any State Area
15.31%	20.13%	9.43%	20.12%	35%

- Co-benefits
 - Carbon reduction is of course the primary goal of this program, but each project can have multiple co-benefits that accrue to residents, visitors, and through travelers.

Using these parameters, ITD will implement a decision-making process that allows for flexibility in project selection. ITD will review priority strategies and match projects with funding on an annual basis.

³⁴ Source: [23 U.S.C. 134\(k\)\(5\)](#)

³⁵ FHWA, *Carbon Reduction Program Implementation Guidance*, April 21, 2022, https://www.fhwa.dot.gov/environment/sustainability/energy/policy/crp_guidance.pdf.

6. Monitoring Performance and CRS Updates

Federal Requirements

The CRP legislative language and program guidance do not require, at the time of development of this draft ITD CRS, that the program be evaluated using qualitative or quantitative performance measures. If the ITD or the state's MPOs choose to develop and implement an evaluation program for the CRS, the guidance states that those costs incurred for conducting and evaluation can be funded through the CRP, unless prohibited by statute or regulation.

Performance Measures and Targets

The ITD is monitoring activity related to [a proposed rule](#) by the U.S. DOT's FHWA, that would require the department and MPOs to establish performance measures and targets for greenhouse gas emissions. According to the FHWA, the "proposed rule would not mandate the level of the targets. Rather, State DOTs and MPOs would have flexibility to set targets that are appropriate for their communities and that work for their respective ... policy priorities, as long as the targets would reduce emissions over time."³⁶ After this rule and the CO₂e emissions targets are established, the ITD and the Idaho MPOs would be required to show progress toward achieving the targets. ITD will follow applicable guidance and reporting performance measures related to carbon and other transportation emissions.

ITD's CRS Update Cycle

The federal CRP requires that each state's CRS be updated every four years. Based on the schedule for development of the ITD CRS, the ITD would expect to begin updating its CRS in 2027.

³⁶ Online at: <https://www.govinfo.gov/content/pkg/FR-2023-12-07/pdf/2023-26019.pdf>.