SECTION 3

Existing Conditions

The purpose of this section is to provide a general inventory of the regional transportation system, identify current deficiencies and describe the measurements used to determine system performance.

ROADWAYS

FEDERAL FUNCTIONAL CLASSIFICATION

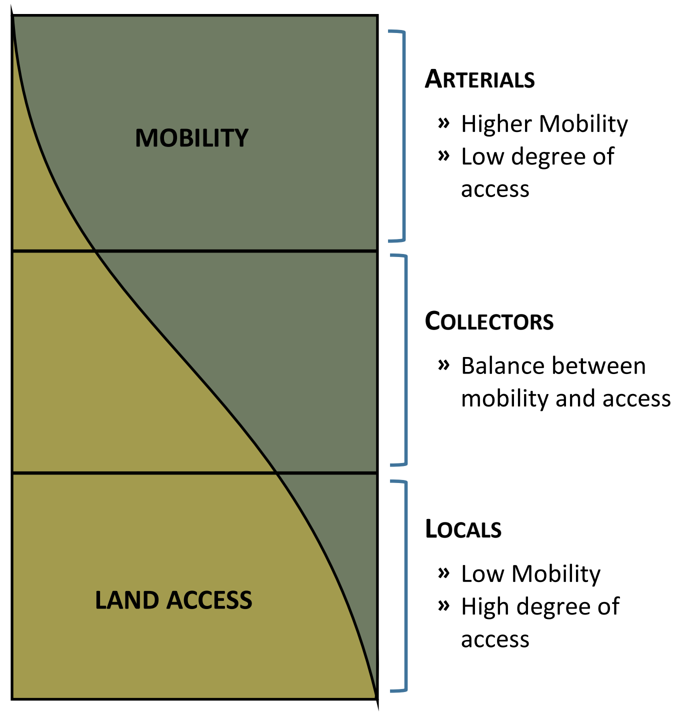
Existing roadways are classified by how they function within an integrated network. Figure 3.1 shows the relationship of functional classifications and their ability to serve mobility and access. The KMPO Board, Idaho Transportation Department (ITD), and, ultimately, the Federal Highway Administration (FHWA) formally approve an official functional classification map, which is updated approximately every 10 years. The Federal Functional Classification System (FFCS) maps were last updated March 3, 2017. Figure 3.2a shows the functional classifications of rural roadways. Figure 3.2b shows the functional classifications within the urban area.

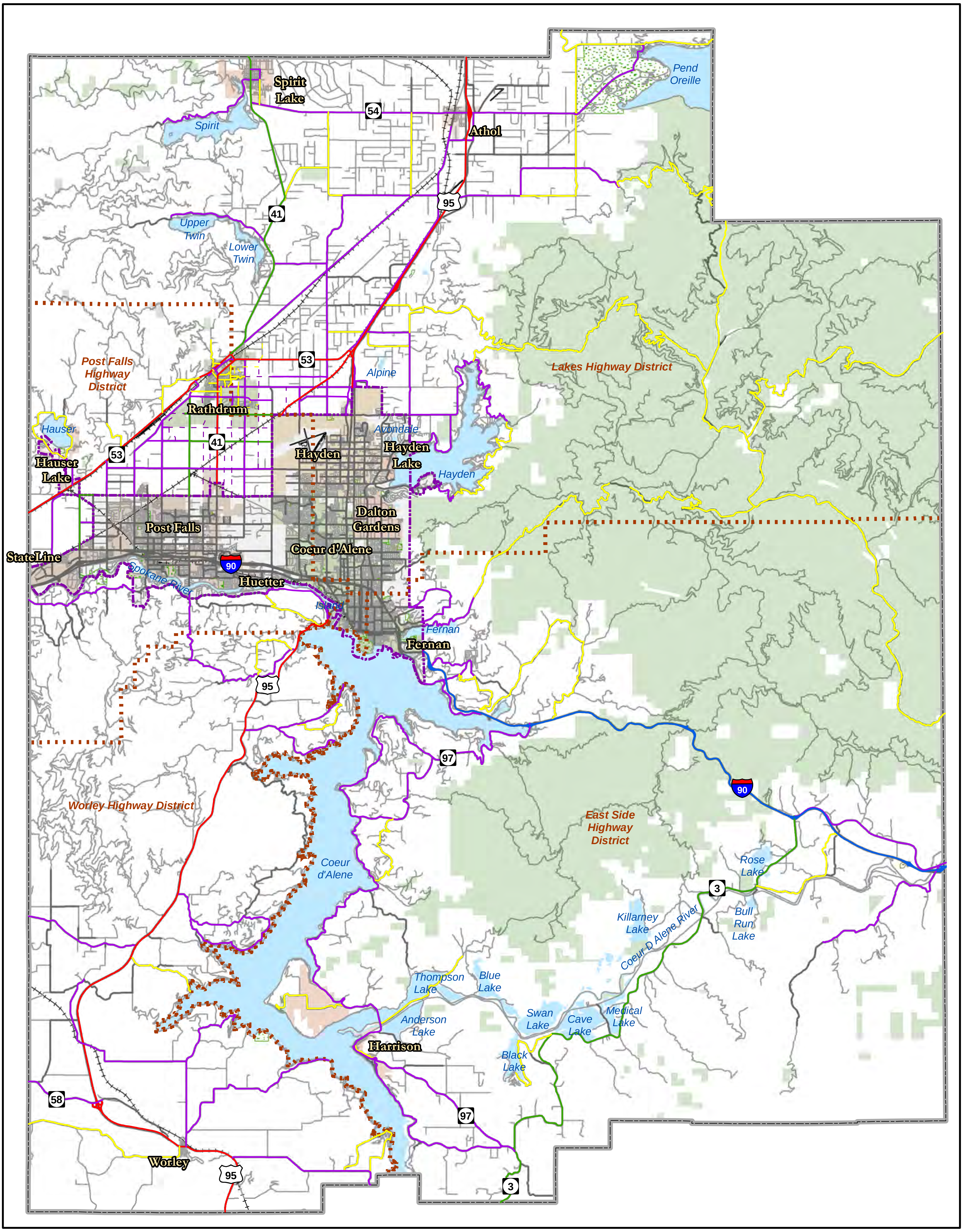
The functional class map defines which roadways are eligible for federal funding through the Federal-aid Highway program. In Idaho, Federal-aid funding in rural areas is limited to roadways classified as rural major collectors and higher. In urban areas, a roadway must be classified as an urban collector or higher to receive Federal-aid funding. Other local streets and private roads are not eligible for Federal-aid Highway funding.

The Federal Functional Classifications are generally defined as follows:

- Freeways and Interstates
- Principal Arterials
- Minor Arterials
- Urban Collectors
- Rural Major Collectors
- Rural Minor Collectors
- Local Roads

Figure 3.1 Relationship of Functionally Classified Systems in Serving Traffic Mobility and Land Access





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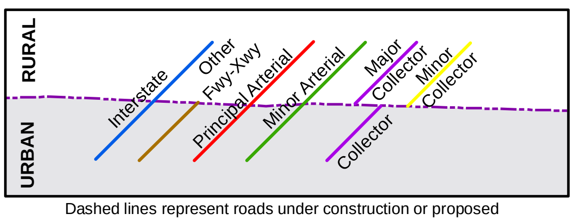
Miles

2025 FEDERAL FUNCTIONAL CLASSIFICATION, RURAL, KOOTENAI COUNTY

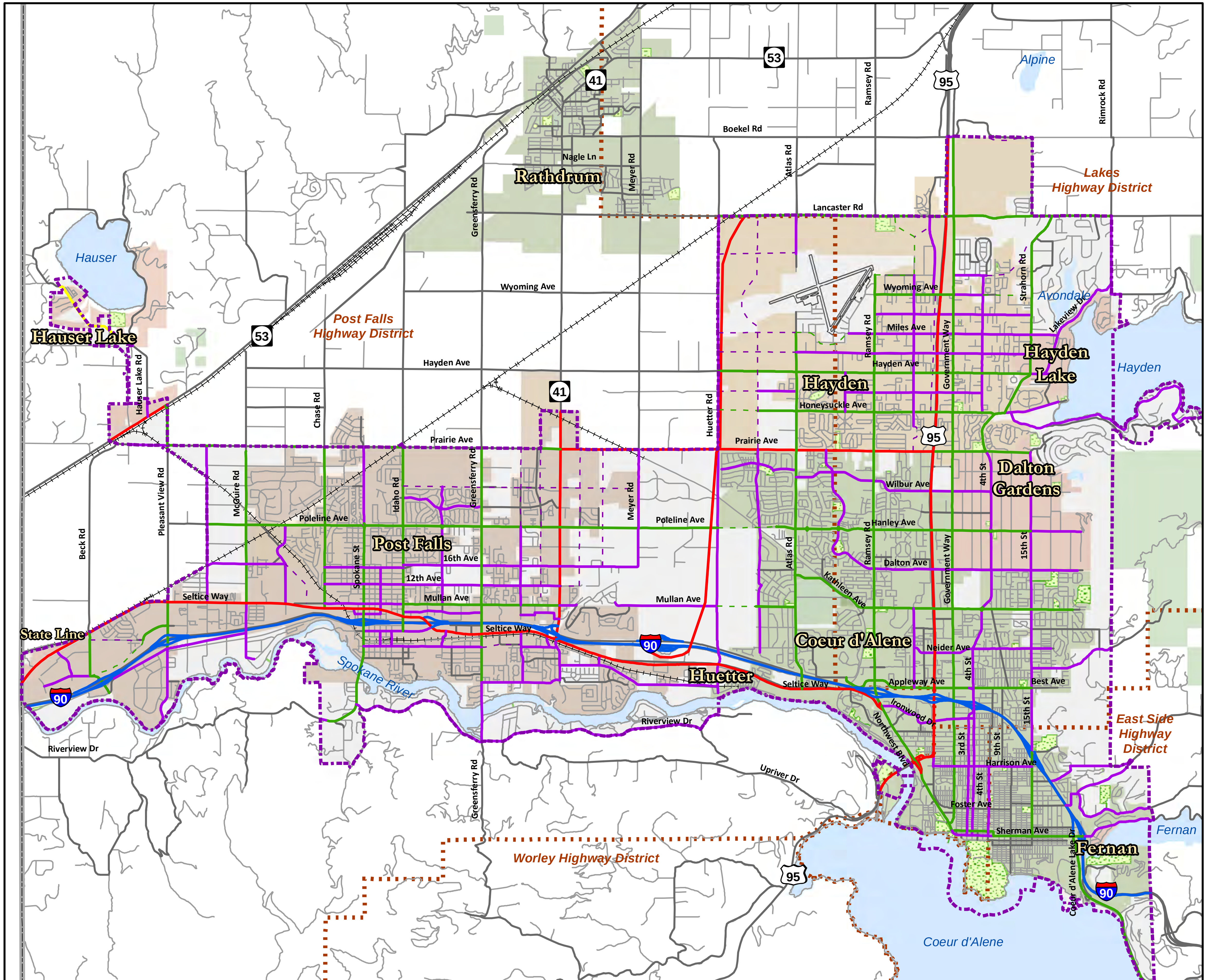


Dashed lines represent roads under construction or proposed

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- National Forests
- Water_Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

2025 FEDERAL FUNCTIONAL CLASSIFICATION, URBAN AREA

RURAL
URBAN
Interstate
Other Fwy-Xwy
Principal Arterial
Minor Arterial
Major Collector
Collector
Minor Collector

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- Kootenai County
- National Forests
- Water Features
- Parks

N
W E
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0 0.275 0.55 1.1 1.65 2.2
Miles

Kootenai MPO

Dashed lines represent roads under construction or proposed
*Data based on best available information. *Data for illustrative purposes only.

FREEWAYS AND INTERSTATES

Interstates are designed to allow for the most efficient movement of people and goods of any roadway, with traffic operating at high speeds and with limited access.

Interstate 90 is the only federally classified freeway/interstate in Kootenai County. Owned and maintained by Idaho Department of Transportation, I-90 totals 36 miles (179 lane miles) of urban and rural interstates and ramps, and 16 interchanges. Speed limits along I-90 range from 65 to 75 mph.

PRINCIPAL ARTERIALS

Principal Arterials are designed to carry high traffic volumes and serve a high proportion of through trips and long-distance travel. Similar to the design of interstates, principal arterials function most effectively when access is limited. Typically, a principal arterial will have at least two lanes in each direction with curbs and sidewalks. In dense urban areas, it is also possible for on-street parking to be located along a principal arterial. Major intersections on urban principal arterials are typically signalized, and the uniformity of signal placement and coordination are critical to the successful operation of the arterial. Signals are discouraged on rural principal arterials, where high speeds make interchanges and grade separations much safer alternatives.

Seltice Way, Prairie Avenue, US 95 through Coeur d'Alene, and SH-41 through Post Falls are classified as urban principal arterials. The County's rural principal arterials are SH-53, US 95 north of Hayden, US 95 from Coeur d'Alene to Benewah County line, and SH-41 north of Prairie Avenue. Speed limits for principal arterials in Kootenai County are generally 35 to 45 mph in urban areas and 55 mph in rural areas. There are approximately 305 lane miles of principal arterials in Kootenai County.

MINOR ARTERIALS

Minor arterials connect private and commercial traffic from lower roadway classifications to the larger transportation system. Minor arterials can have a variety of design characteristics based on the activity level and context of the area they are located in.

Government Way, Lancaster Avenue, and Greensferry Road are examples of minor arterials. There are approximately 307 lane miles of minor arterials in the County, with speed limits generally in the 35-45 mph range.

COLLECTORS

Collector streets collect residential and rural traffic and direct it to minor or principal arterials. Collectors are typically one lane in each direction and operate at speeds of 25 to 35 mph. Direct access to adjoining property is common. Collector streets are subcategorized into Urban Collectors, Rural Major Collectors and Rural Minor Collectors. On-street parking is generally acceptable on an Urban Collector but may be limited. Rural Major Collectors often connect important rural regional facilities directly to state highways or the Interstate system.

15th Street in Coeur d'Alene, Hayden Avenue, Diagonal Road, and Fernan Lake Road are examples of collectors. There are over 1,200 lane miles of collectors in Kootenai County.

LOCAL STREETS

Local streets provide direct access to individual properties. They operate at speeds below 30 mph and have traffic volumes less than 2,500 ADT. Although local streets are not part of the federal functional classification system, they make up the highest number of road miles in all of Kootenai County.

REGIONAL DEMAND MODEL STREET TYPOLOGY

The KMPO Regional Travel Demand Model expands upon the five broad classifications provided by the Federal Functional Classification System. To reflect the operational conditions unique to each roadway, the model employs 28 categories of street typology.

Table 3.1 KMPO Regional Demand Model Street Typology

Street Type	Type No.	Capacity (vphpl*)	Speed Limit
Urban Interstate	11	1900	60
Proposed Urban Interstate	31	2000	60
Rural Freeway	1	1800	70
Urban Principal Arterial	25	1600	45
Urban Principal Arterial II	70	1500	35
Urban Principal Arterial III	16	1000	30
Proposed Urban Principal Arterial	34	1400	45
Rural Principal Arterial	4	1200	50
Rural Principal Arterial Type II	3	1400	50
Proposed Rural Principal Arterial	22	1300	60
Urban Minor Arterial	23	1200	30
Urban Minor Arterial II	45	700	25
Urban Minor Arterial III	14	900	30
Proposed Urban Minor Arterial	36	1200	40
Rural Minor Arterial I	47	1000	35
Rural Minor Arterial II	69	750	35
Urban Collector Arterial I	24	1000	30
Urban Collector Arterial II	49	600	30
Proposed Urban Collector	37	600	35
Rural Major Collector	10	800	45
Proposed Rural Major Collector	27	1200	45
Rural Minor Collector	43	600	40
Proposed Rural Minor Collector	28	600	35
Local Street	19	500	25
Rural Local Street	9	500	25
Ramps	50	1500	45
Rural Ramps	51	1000	45
Urban Arterial Ramp	57	1600	45
*Vehicle per Hour per Lane			

NUMBER OF LANES, SPEED LIMITS AND INTERSECTION CONTROLS

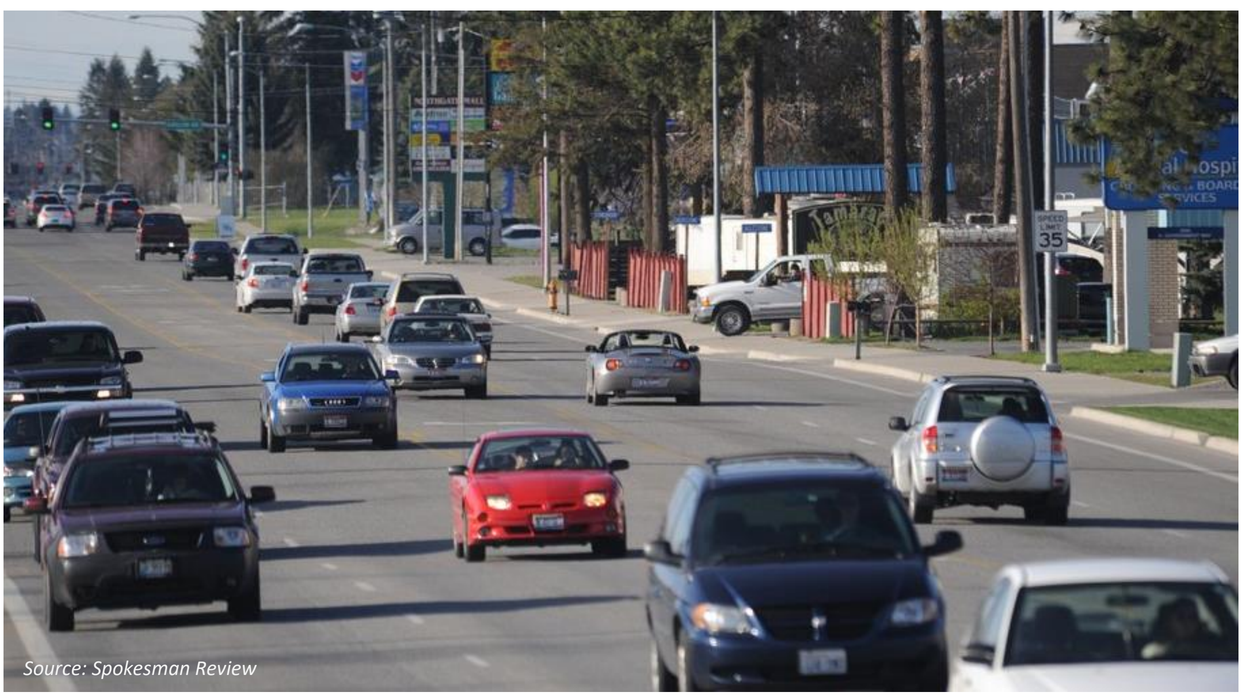
Figures 3.3a and 3.3b illustrate the number of lanes on existing roadways. Figures 3.4a and 3.4b show existing speed limits.

Traffic signals, stop signs, and yield signs are all forms of intersection control, and each one creates some level of delay on the street system. Figures 3.5a and 3.5b show the different types of intersection controls and their locations on the regional network.

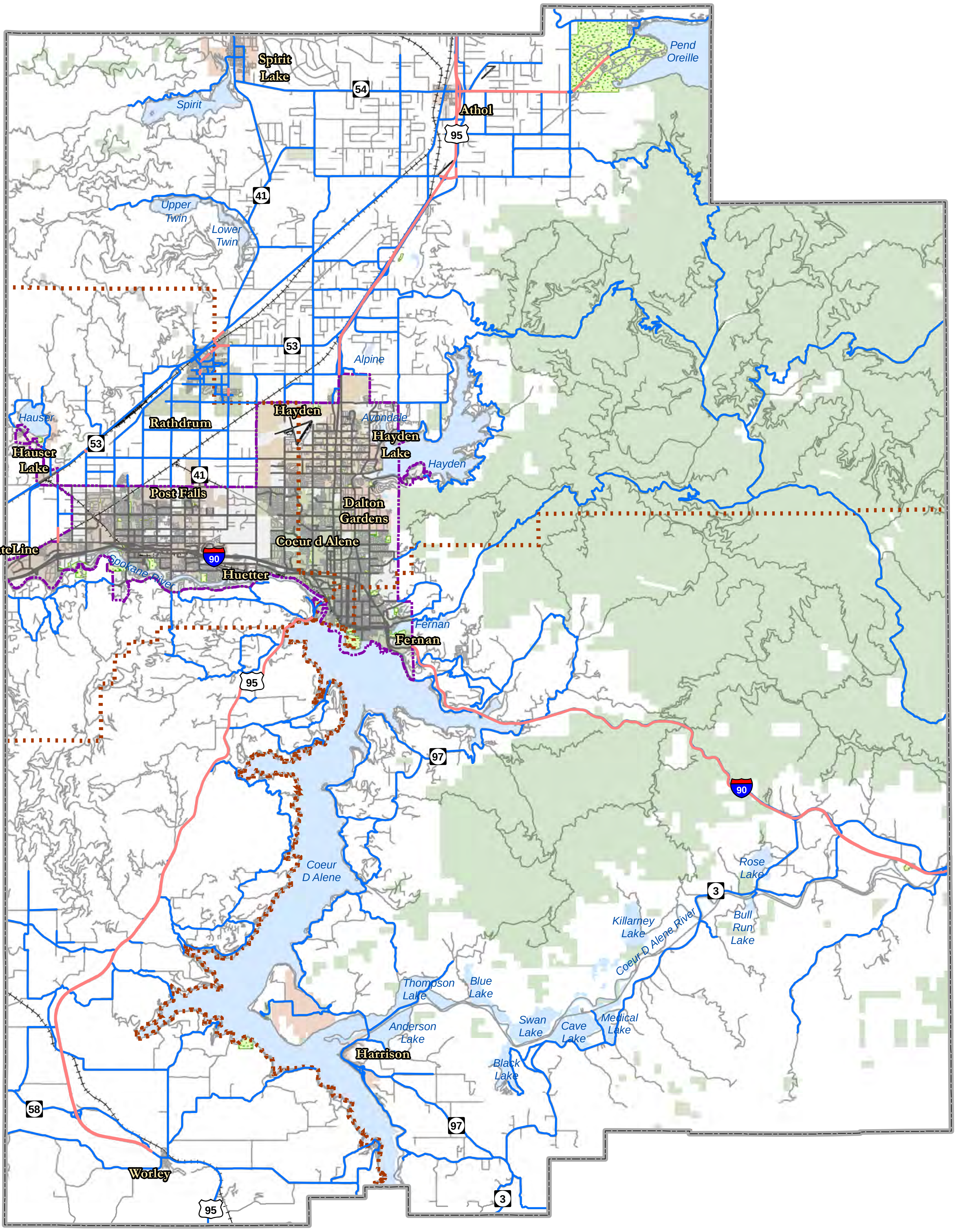
TRAFFIC VOLUMES

Accurate collection of system-wide traffic volumes is fundamental to regional transportation planning. KMPO collects traffic counts from local jurisdictions annually to validate the regional transportation demand model (discussed in Section 2) and to monitor roads that are close to exceeding their design capacity. Count data are also used to assist jurisdictions in anticipating when traffic signals or turn lanes may be needed.

Figures 3.6a and 3.6b provide the locations where traffic counts are typically collected. Only routes on the federal functional classification system are included in KMPO's count program. KMPO collects traffic counts from local jurisdictions that are taken in the spring or fall, when traffic volumes and patterns most closely reflect the annual average. Roadways affected by construction and dates of major events and holidays that can cause shifts in typical travel patterns are avoided during the count process. Most rural routes are counted approximately every year or two. The time between counts in the urban area may be longer.



Source: Spokesman Review



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Miles

NUMBER OF EXISTING LANES, RURAL, KOOTENAI COUNTY

Number of Lanes

- 1 - 2 LANES
- 3 - 4 LANES
- 5 - 6 LANES

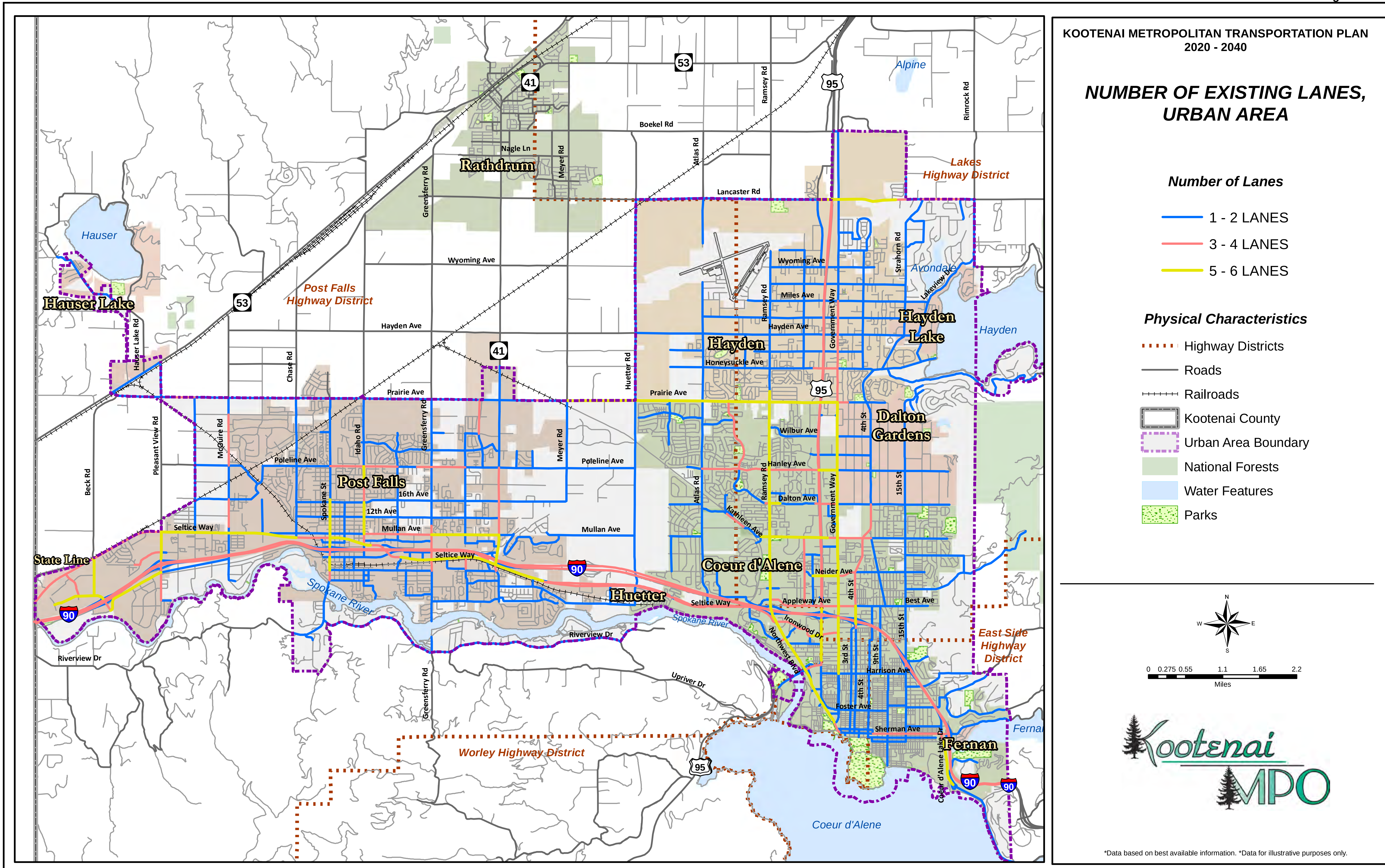
Physical Characteristics

- Highway Districts
- Roads
- Railroad
- Kootenai County
- Urban Area Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.3a

Figure 3.3b


KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040
NUMBER OF EXISTING LANES, URBAN AREA
Number of Lanes
1 - 2 LANES
3 - 4 LANES
5 - 6 LANES
Physical Characteristics
Highway Districts
Roads
Railroads
Kootenai County
Urban Area Boundary
National Forests
Water Features
Parks
N
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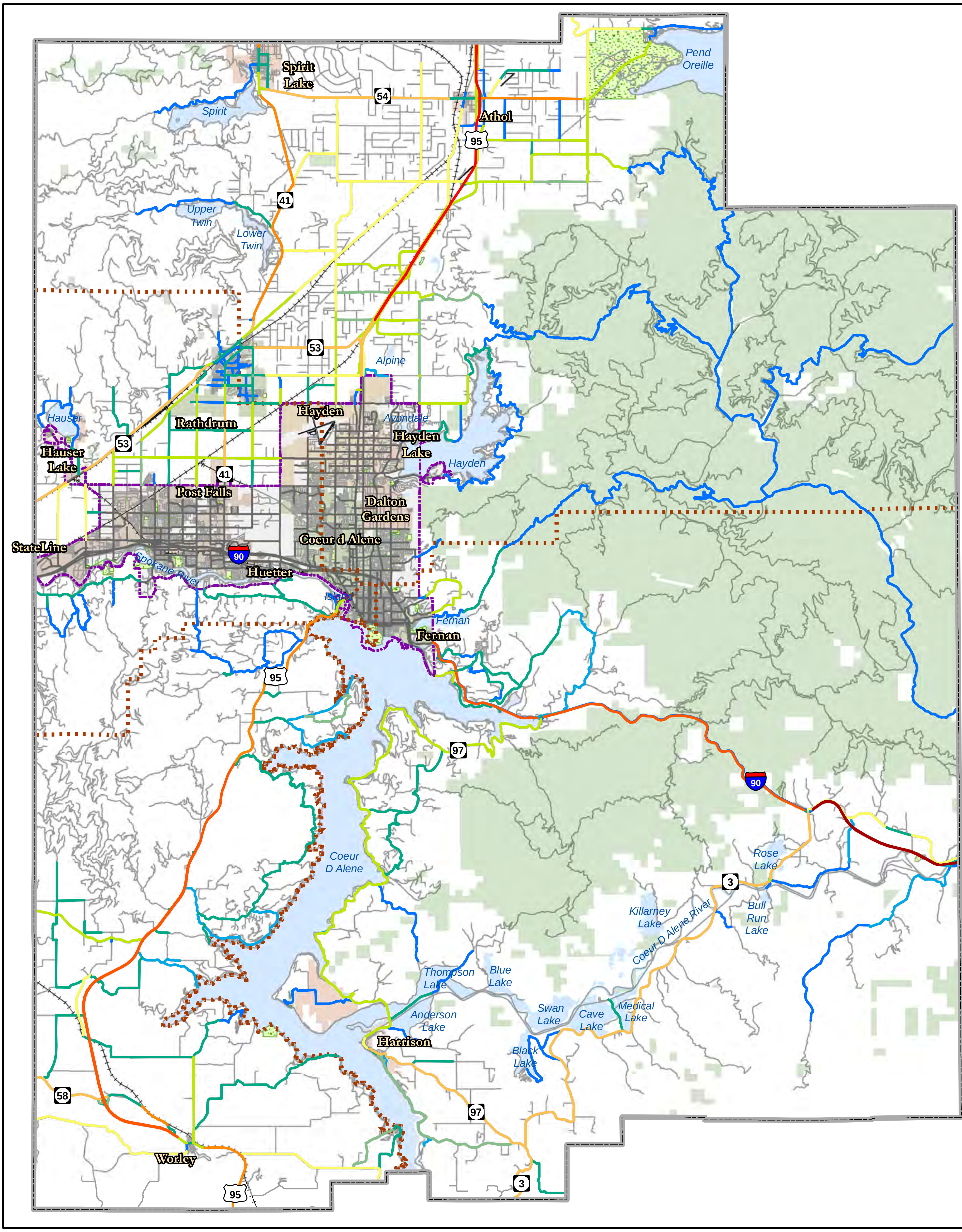
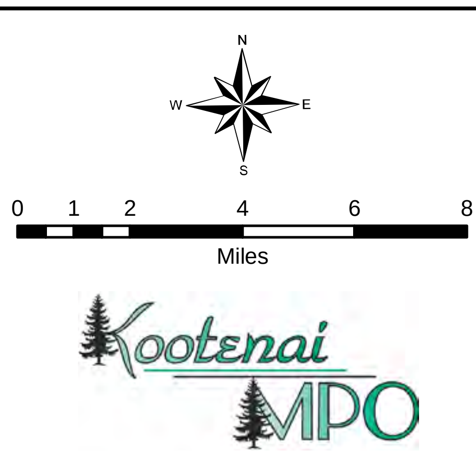
S
0 0.275 0.55 1.1 1.65 2.2
Miles
Kootenai MPO
*Data based on best available information. *Data for illustrative purposes only.
Rathdrum
Hauser Lake
Hauser
Post Falls
Hayden
Hayden Lake
Dalton Gardens
Coeur d'Alene
Huetter
State Line
Fernan
Post Falls Highway District
Lakes Highway District
East Side Highway District
Worley Highway District
Alpine
Avondale
Hayden
Fernan
Coeur d'Alene
Spokane River
Boekel Rd
Lancaster Rd
Nagle Ln
Wyoming Ave
Miles Ave
Hayden Ave
Honeysuckle Ave
Prairie Ave
Wilbur Ave
Hanley Ave
Dalton Ave
Poleline Ave
16th Ave
12th Ave
Mullan Ave
Seltice Way
Neider Ave
Appleway Ave
Best Ave
Ironwood Dr
Northwest Blvd
Harrison Ave
Foster Ave
Sherman Ave
Kathleen Ave
Riverview Dr
Upriver Dr
Ramsey Rd
Atlas Rd
Rimrock Rd
Strahorn Rd
Lakeview Dr
Government Way
4th St
15th St
3rd St
9th St
Coeur d'Alene Lake Dr
Huetter Rd
Meyer Rd
Greensferry Rd
Idaho Rd
Spokane St
McGuire Rd
Chase Rd
Pleasant View Rd
Hauser Lake Rd
Beck Rd
53
41
95
90





EXISTING SPEED LIMITS RURAL, KOOTENAI COUNTY

Speed Limits

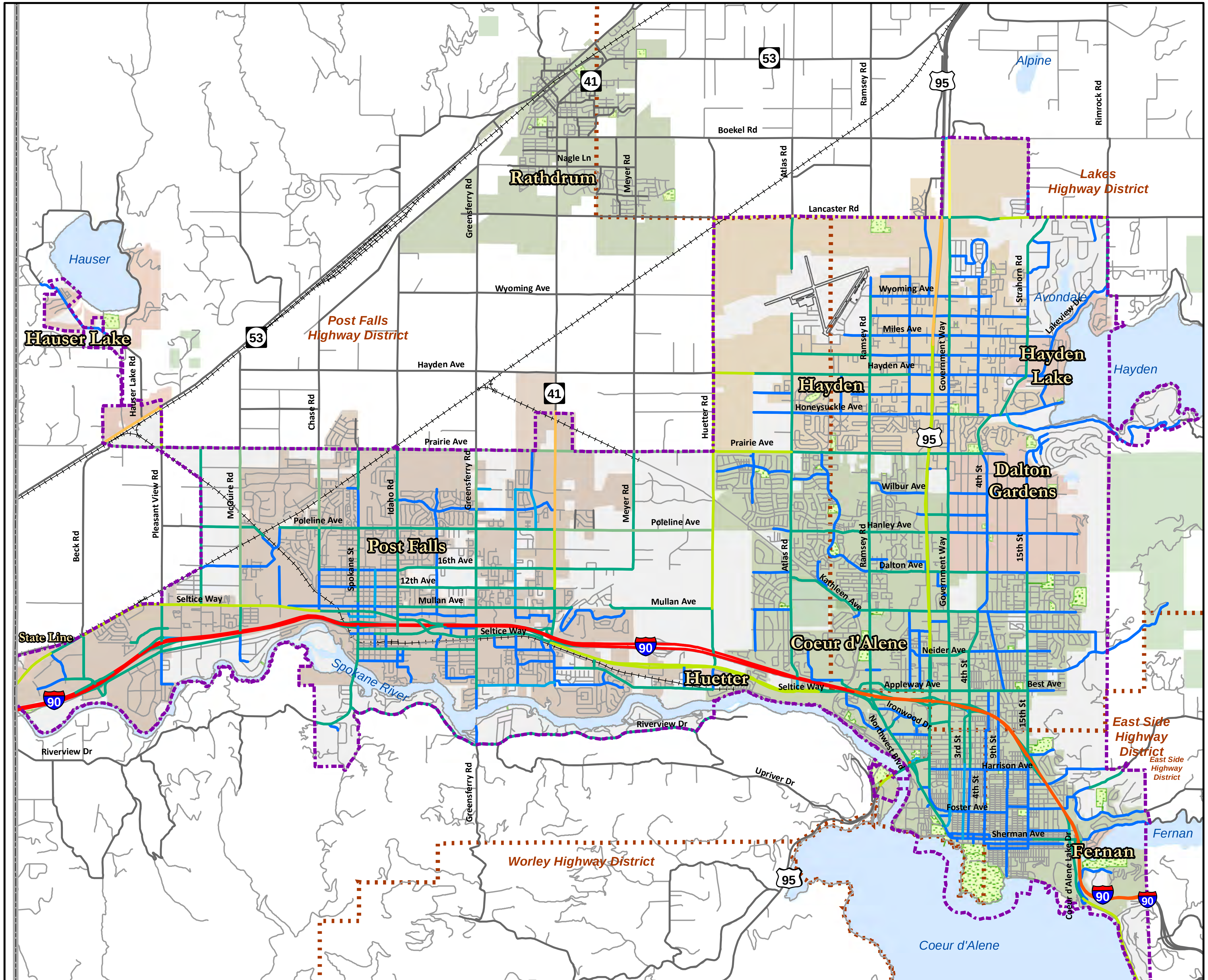
- <= 25 MPH
- 30 MPH
- 35 MPH
- 40 MPH
- 45 MPH
- 50 MPH
- 55 MPH
- 60 MPH
- 65 MPH
- 70 MPH
- 75 MPH

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- Kootenai County
- Urban Area Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.4a



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

EXISTING SPEED LIMITS, URBAN AREA

Speed Limits

- <= 25 MPH
- 30 MPH
- 35 MPH
- 40 MPH
- 45 MPH
- 50 MPH
- 55 MPH
- 60 MPH
- 65 MPH
- 70 MPH
- 75 MPH

Physical Characteristics

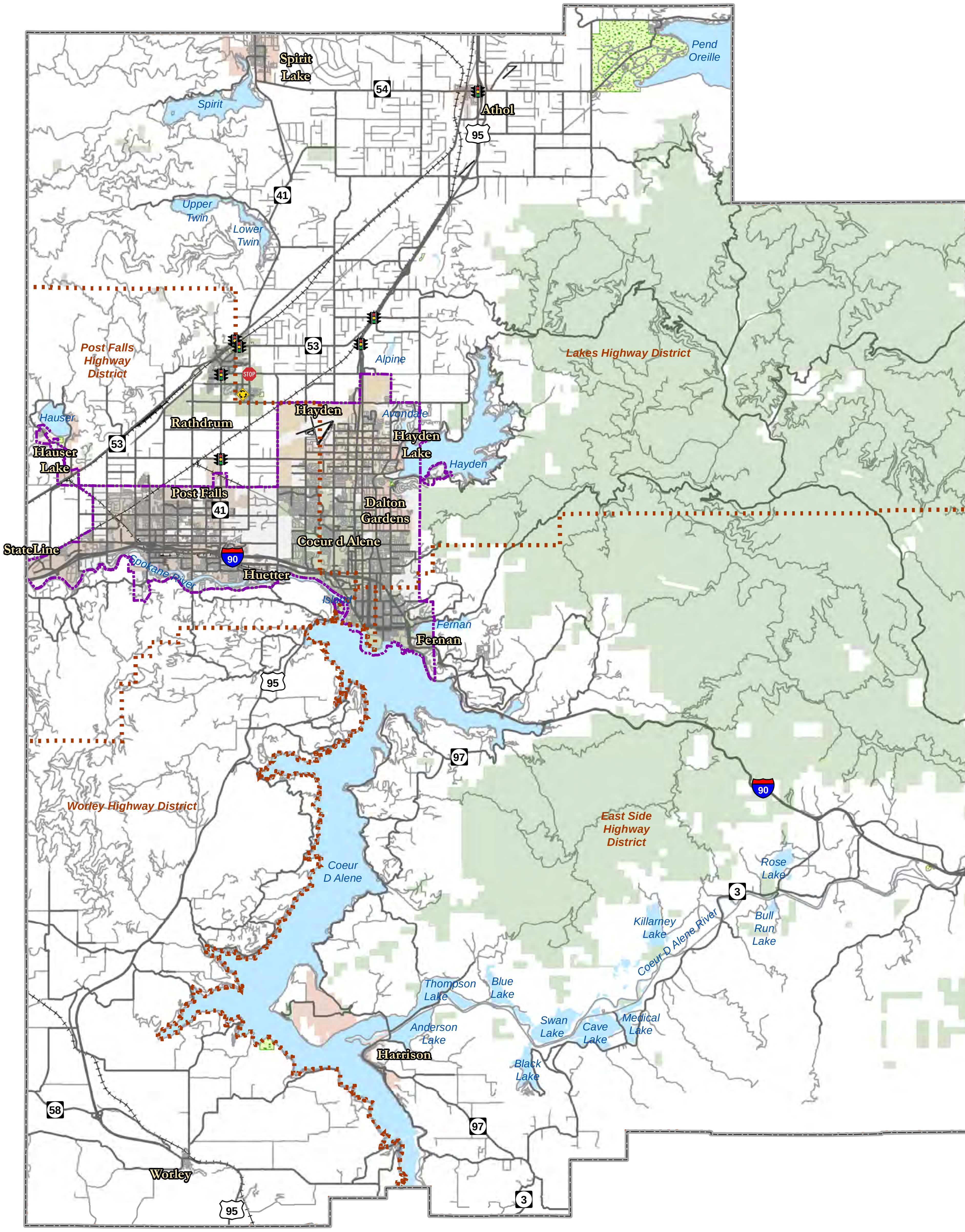
- Highway Districts
- Roads
- Railroads
- Kootenai County
- Urban Area Boundary
- National Forests
- Water Features
- Parks

N W E S

0 0.275 0.55 1.1 1.65 2.2
Miles

Kootenai MPO

*Data based on best available information. *Data for illustrative purposes only.



0 1 2 4 6 8
Miles

Kootenai MPO

EXISTING INTERSECTION CONTROLS, RURAL KOOTENAI COUNTY

Control Types

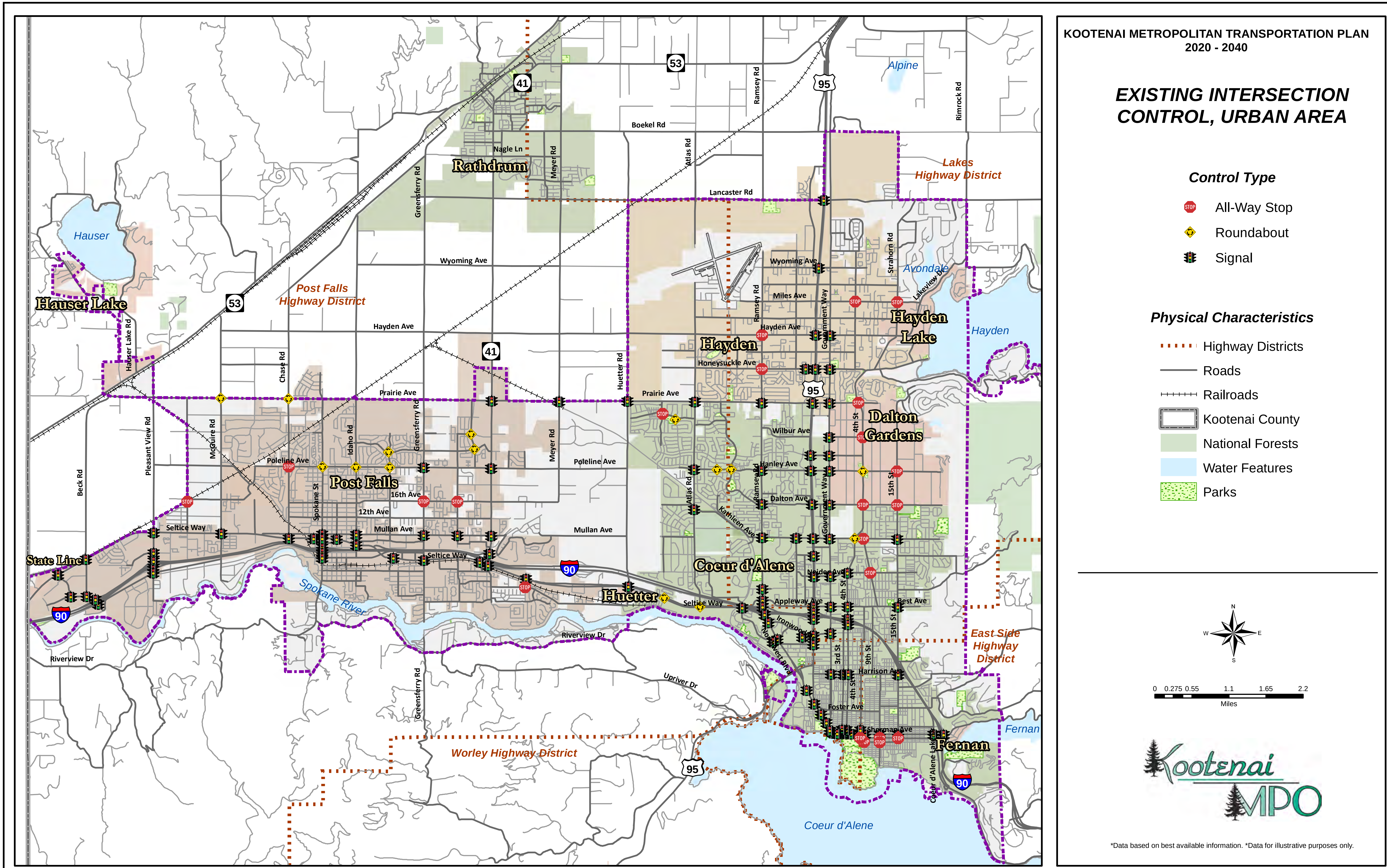
All-Way Stop
Roundabout
Signal

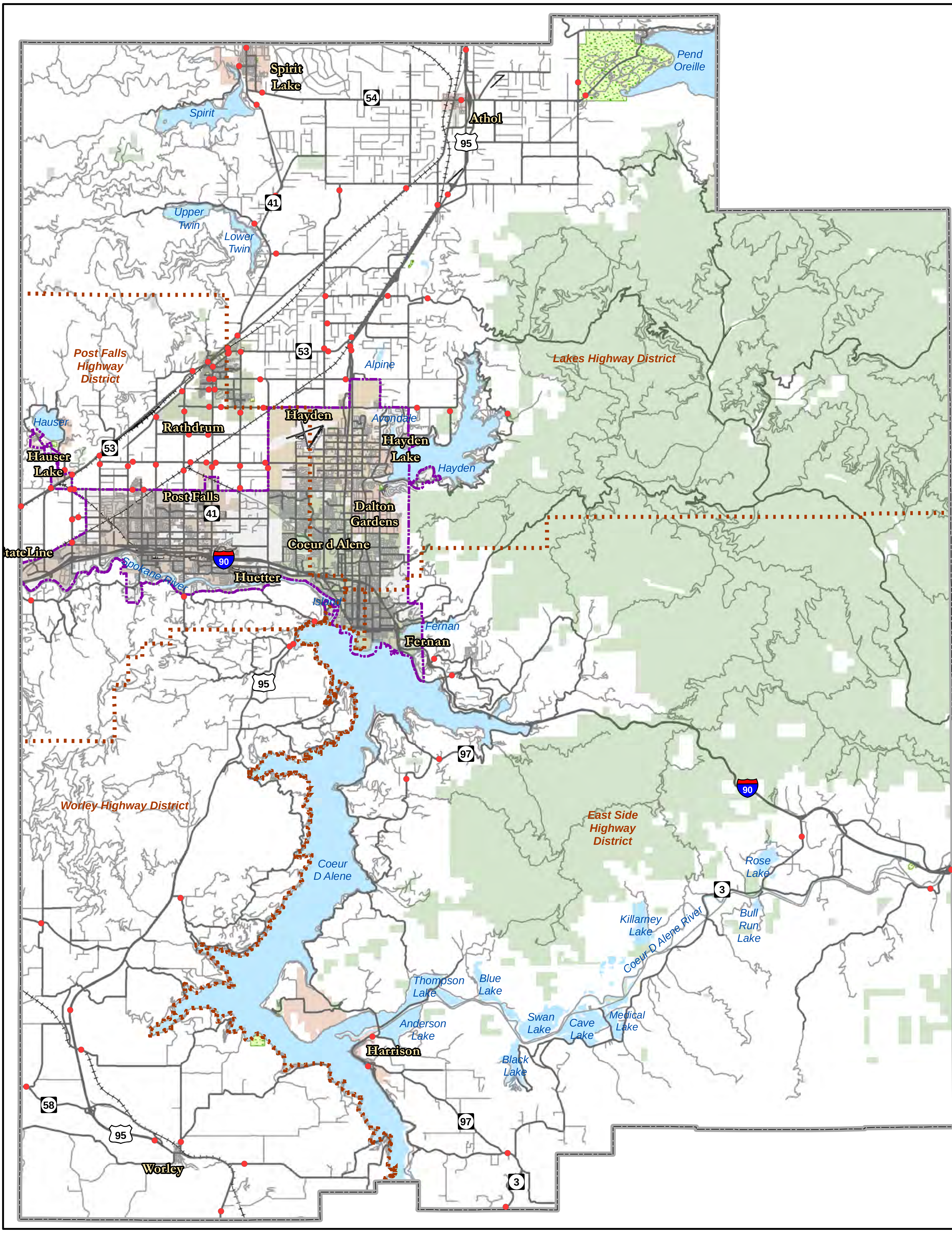
Physical Characteristics

Highway Districts
Roads
Railroads
County Boundary
Urban Area Boundary
National Forests
Water Features
Parks

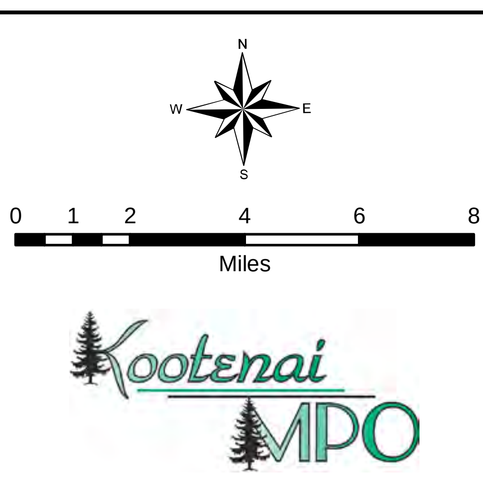
*Data based on best available information.*Data for illustrative purposes only.

Figure 3.5a


KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040
EXISTING INTERSECTION CONTROL, URBAN AREA
Control Type
All-Way Stop
Roundabout
Signal
Physical Characteristics
Highway Districts
Roads
Railroads
Kootenai County
National Forests
Water Features
Parks
0 0.275 0.55 1.1 1.65 2.2
Miles
Kootenai MPO
*Data based on best available information. *Data for illustrative purposes only.
Rathdrum
Hauser Lake
Hauser
Post Falls Highway District
Post Falls
State Line
Lakes Highway District
Hayden
Hayden Lake
Dalton Gardens
Coeur d'Alene
Huetter
Fernan
East Side Highway District
Worley Highway District
Alpine
Avondale
Spokane River
Boekel Rd
Lancaster Rd
Wyoming Ave
Hayden Ave
Prairie Ave
Poleline Ave
16th Ave
12th Ave
Mullan Ave
Seltice Way
Riverview Dr
Upriver Dr
Miles Ave
Honeysuckle Ave
Wilbur Ave
Hanley Ave
Dalton Ave
Neider Ave
Appleway Ave
Best Ave
Harrison Ave
Foster Ave
Sherman Ave
Nagle Ln
Meyer Rd
Greensferry Rd
Chase Rd
Hauser Lake Rd
Pleasant View Rd
McGuire Rd
Beck Rd
Idaho Rd
Spokane St
Huetter Rd
Atlas Rd
Ramsey Rd
Government Way
Kathleen Ave
Ironwood
Northwest Blvd
3rd St
4th St
9th St
15th St
Strahorn Rd
Rimrock Rd
Lakeview Dr
Coeur d'Alene Lake Dr
53
41
95
90



EXISTING TRAFFIC COUNT LOCATIONS, RURAL, KOOTENAI COUNTY



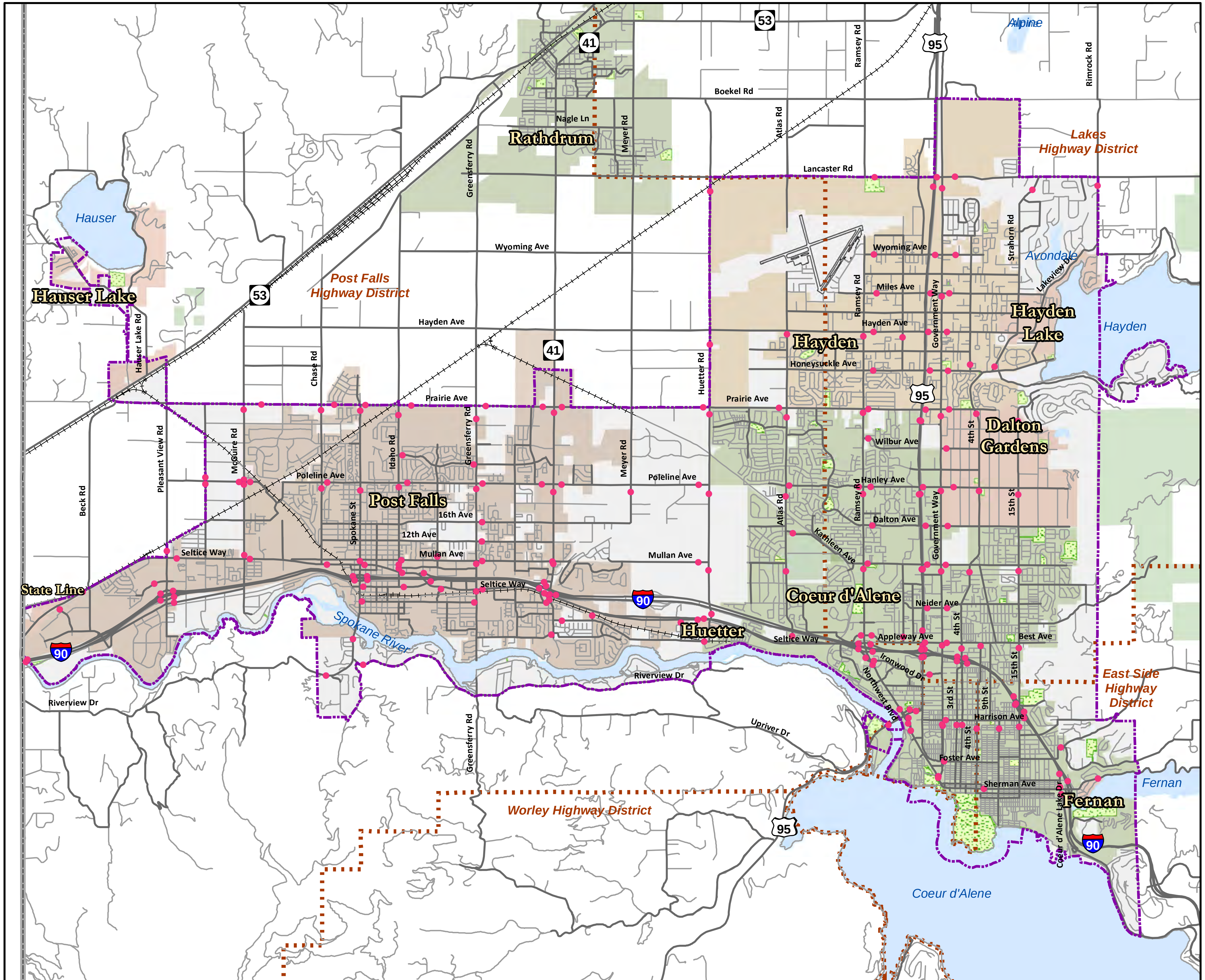
Traffic Count Locations

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- County Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.6a



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

EXISTING TRAFFIC COUNT LOCATIONS, URBAN AREA

Traffic Count Locations

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- County Boundary
- Urban Area Boundary
- National Forests
- Water Features
- Parks

0 0.275 0.55 1.1 1.65 2.2
Miles

*Data based on best available information. *Data for illustrative purposes only.

MEASURING SYSTEM PERFORMANCE

In assessing system performance, KMPO examines several factors:

- Corridor travel times
- Roadway segment levels of service (peak hour)
- General intersection performance

EXISTING CORRIDOR TRAVEL TIMES

Major corridor travel times are regularly measured for state highway facilities that experience congestion. Highways measured include I 90, US 95, SH 41, and SH 53 in the areas around Post Falls, Rathdrum, Hayden and Coeur d'Alene. Major corridor average travel times are shown in Table 3.2.

Figures 3.7a through 3.7d depict state highway corridor average travel times, as measured in 2016.

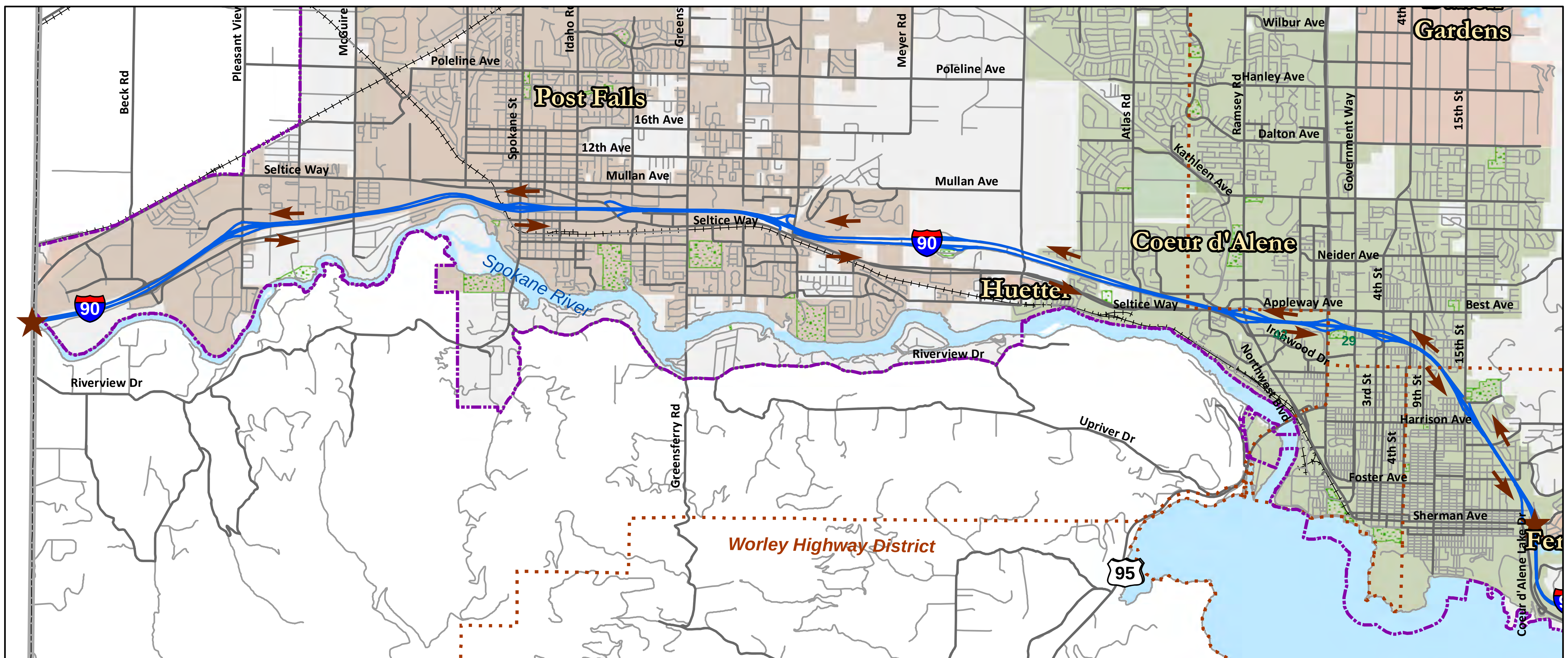
Table 3.2 Major Corridor Average Travel Times

Roadway and Direction of Travel	Congested* Travel Time (min)	Freeflow* Travel Time (min)	Difference (min)	Segment Length (miles)	Average corridor delay per mile (sec)
I 90 Eastbound ***State Line to Sherman***	14.5	13.6	0.9	15.3	**3.5**
I 90 Westbound ***Sherman to State Line***	18.8	12.8	6.1	15.3	**23.8**
US 95 Northbound ***NW Blvd to Wyoming***	18.4	11.1	7.3	6.4	**60.5**
US 95 Southbound ***Wyoming to NW Blvd***	18.2	11	7.2	6.4	**60.1**
SH 41 Northbound ***Seltice Way to SH53***	13.3	12.2	1.1	7.7	**8.4**
SH 41 Southbound ***SH53 to Seltice Way***	15.6	11.7	3.9	7.7	**30.3**
SH 53 Eastbound ***State Line to US95***	18.5	17.0	1.5	9.4	**9.6**
SH 53 Westbound ***US95 to State Line***	19.5	17.0	2.5	9.4	**8.5**

***Congested and Free flow travel times were obtained from actual driving time measurements in June of 2016. Subsequent analysis has shown similar congested and free-flow travel times for 2019. To obtain "congested" travel times, the corridor was driven five times in the morning peak period (6:30 to 9:00 am), and five times during the evening peak period (4:00 to 6:00 pm). The times shown represent the highest five-run average, which may be either am or pm. Note that these times represent spring/summer conditions. Congestion may be less during autumn/winter months.**

KOOTENAI METROPOLITAN AREA TRANSPORTATION PLAN
2020 - 2040

Time Period	Roadway and Direction of Travel	Congested Travel Time (min, sec)	Freeflow* Travel Time (min, sec), quickest actual travel time	Difference (min, sec) Congested - Freeflow	Segment Length (miles)	Corridor Delay Per Mile Diff = Congested - Freeflow Travel/Distance
AM Period	I-90 Eastbound *State Line to Sherman*	13 min 35 sec	12 min 50 sec	0 min 45 sec	15.3	0.3 sec
AM Period	I-90 Westbound *Shermanto State Line*	18 min 50 sec	12 min 46 sec	6 min 04 sec	15.3	23.8 sec
PM Period	I-90 Eastbound *State Line to Sherman*	14 min 30 sec	13 min 36 sec	0 min 54 sec	15.3	3.5 sec
PM Period	I-90 Westbound *Shermanto State Line*	14 min 18 sec	13 min 36 sec	0 min 42 sec	15.3	2.8 sec



INTERSTATE 90 EXISTING AVERAGE TRAVEL TIMES

SEGMENT TRAVEL TIMES TIME IN SECONDS

Time Congested
Time Freeflow

"Congested" travel times were determined by measuring actual driving times. The route was driven five times in the morning (6:30 - 8:30 am) and five times in the evening (4:00 - 6:00 pm). "Congested" times shown are the highest five-run average, and may be either am or pm.

Direction of Travel

Beginning & Ending Points Segment

Physical Characteristics

Highway Districts
County Boundary
Roads
Urban Area Boundary
Railroad
Water Features
Parks

Kootenai MPO

Source: KMPO Staff 2016 Data

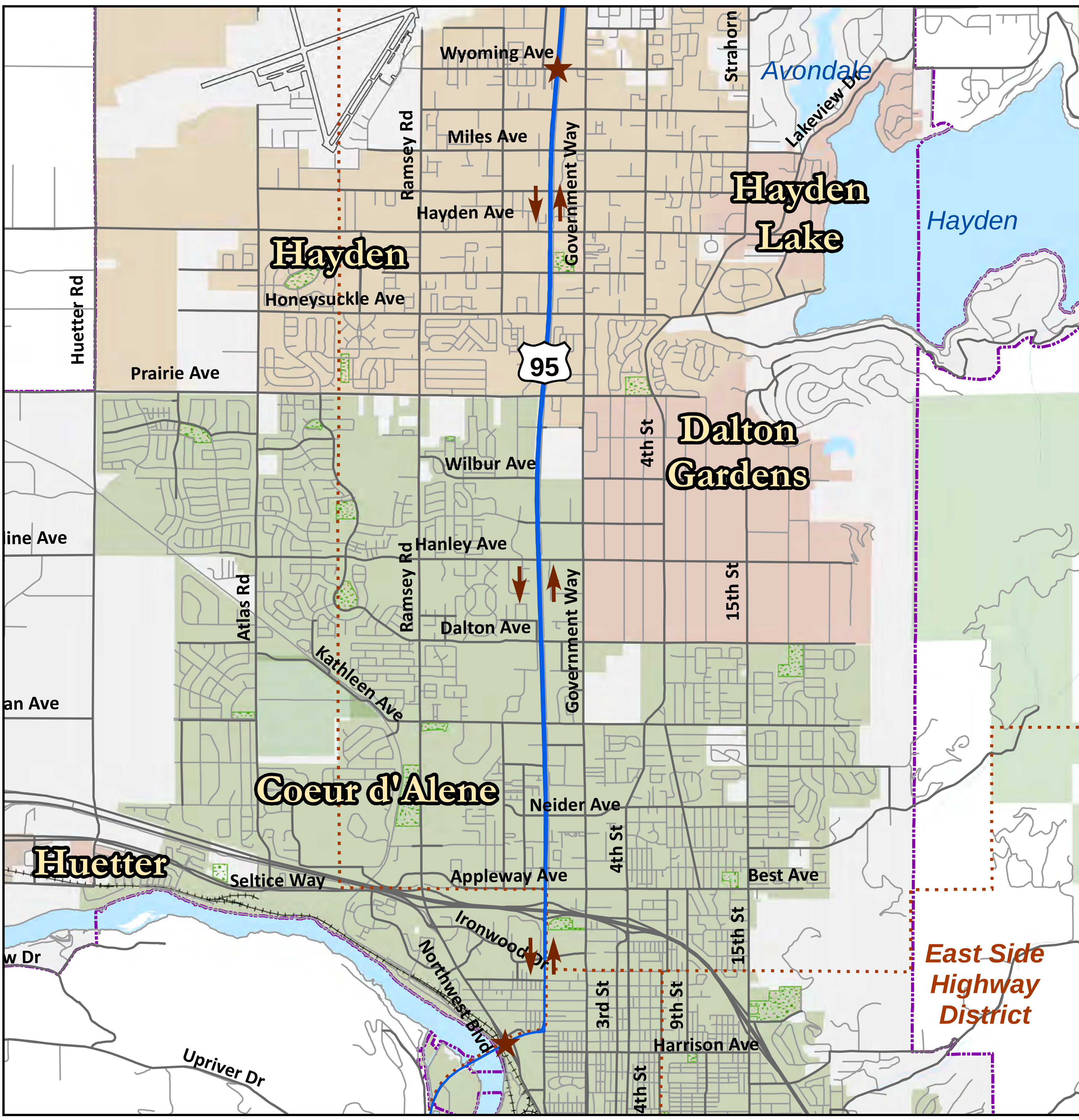
N W E S

0.8 0.4 0 0.8

Miles

* Data based on best available information
* Data for illustrative purposes only

Time Period	Roadway and Direction of Travel	Congested Travel Time (min, sec)	Freeflow* Travel Time (min, sec), quickest actual travel time	Difference (min, sec) Congested - Freeflow	Segment Length (miles)	Corridor Delay Per Mile Diff = Congested - Freeflow Travel/Distance
AM Period	US 95 Northbound NW Blvd to Wyoming	12 min 49 sec	10 min 01 sec	2 min 48 sec	6.4	26.3 sec
AM Period	US 95 Southbound Wyoming to NW Blvd	15 min 46 sec	8 min 33 sec	7 min 13 sec	6.4	1 min 7 sec
PM Period	US 95 Northbound NW Blvd to Wyoming	18 min 25 sec	11 min 08 sec	7 min 17 sec	6.4	1 min 28 sec
PM Period	US 95 Southbound Wyoming to NW Blvd	18 min 12 sec	11 min 0 sec	7 min 12 sec	6.4	1 min 8 sec



US 95 EXISTING AVERAGE TRAVEL TIMES

N W E S

Kootenai MPO

0.4 0.2 0 0.4
Miles

SEGMENT TRAVEL TIMES ~ TIME IN SECONDS

Time Congested

Time Freeflow

"Congested" travel times were determined by measuring actual driving times. The route was driven five times in the morning (6:30 - 8:30 am) and five times in the evening (4:00 - 6:00 pm). "Congested" times shown are the highest five-runaverage, and may be either am or pm.

Source: KMPO Staff 2016

Direction of Travel

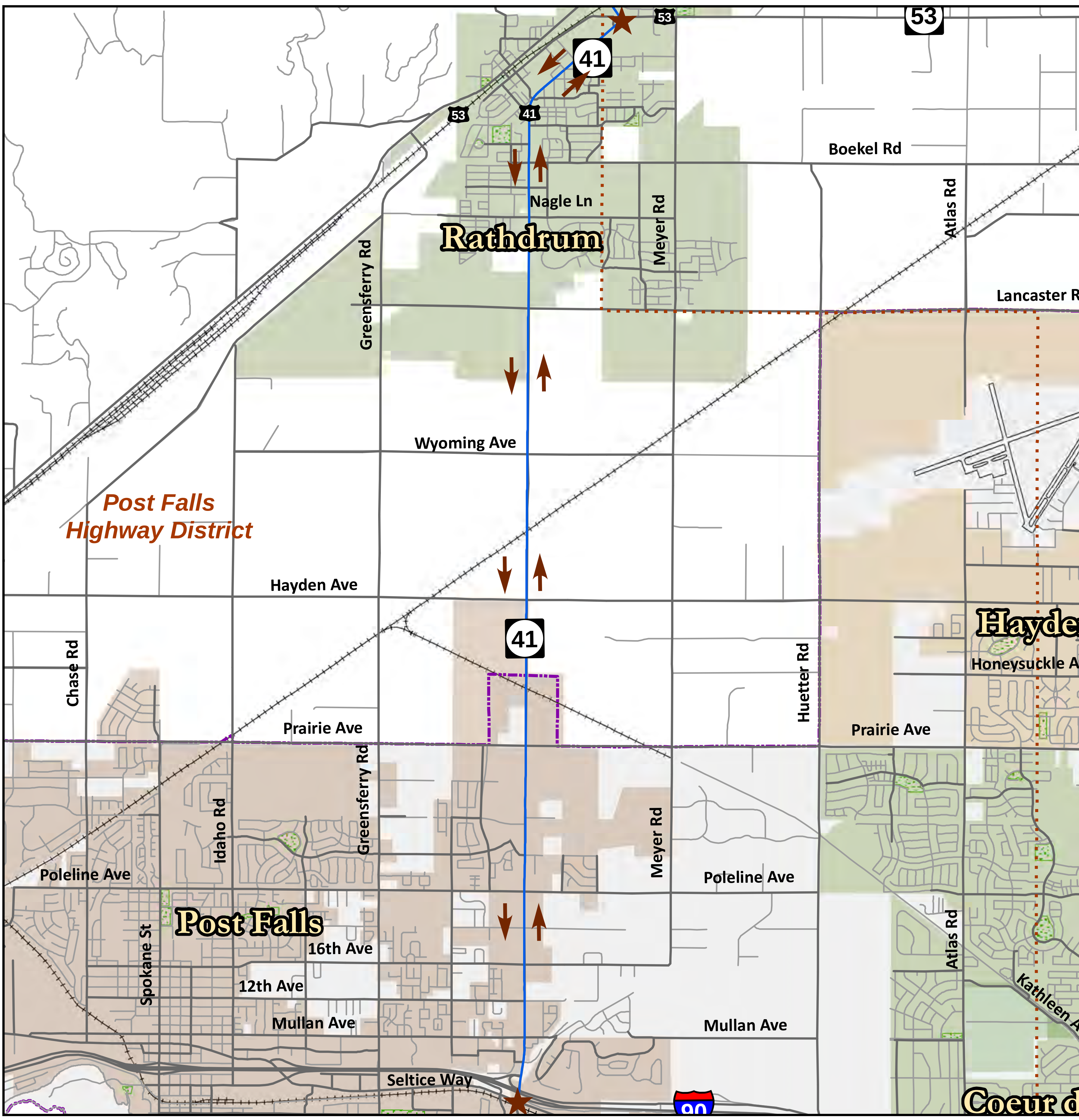
Beginning & Ending Points Segment

* Data based on best available information
* Data for illustrative purposes only

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- Water Features
- Parks

Time Period	Roadway and Direction of Travel	Congested Travel Time (min, sec)	Freeflow* Travel Time (min, sec), quickest actual travel time	Difference (min, sec) Congested - Freeflow	Segment Length (miles)	Corridor Delay Per Mile Diff = Congested - Freeflow Travel/Distance
AM Period	SH 41 Northbound Seltice Way to SH 53	13 min 17 sec	11 min 22 sec	1 min 55 sec	7.7	14.9 sec
AM Period	SH 41 Southbound SH 53 to Seltice Way	14 min 44 sec	11 min 58 sec	2 min 46 sec	7.7	21.6 sec
PM Period	SH 41 Northbound Seltice Way to SH 53	13 min 19 sec	12 min 14 sec	1 min 05 sec	7.7	8.4 sec
PM Period	SH 41 Southbound SH 53 to Seltice Way	15 min 33 sec	11 min 40 sec	3 min 53 sec	7.7	30.3



SH 41 EXISTING AVERAGE TRAVEL TIMES

N
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Kootenai MPO

0.45 0.225 0 0.45
Miles

SEGMENT TRAVEL TIMES ~ TIME IN SECONDS

Time Congested

Time Freeflow

"Congested" travel times were determined by measuring actual driving times. The route was driven five times in the morning (6:00 - 8:30 am) and five times in the evening (4:00 - 6:00 pm). "Congested" times shown are the highest five-run average and may be either am or pm.

Source: KMPO Staff 2016

Direction of Travel

Beginning & Ending Points Segment

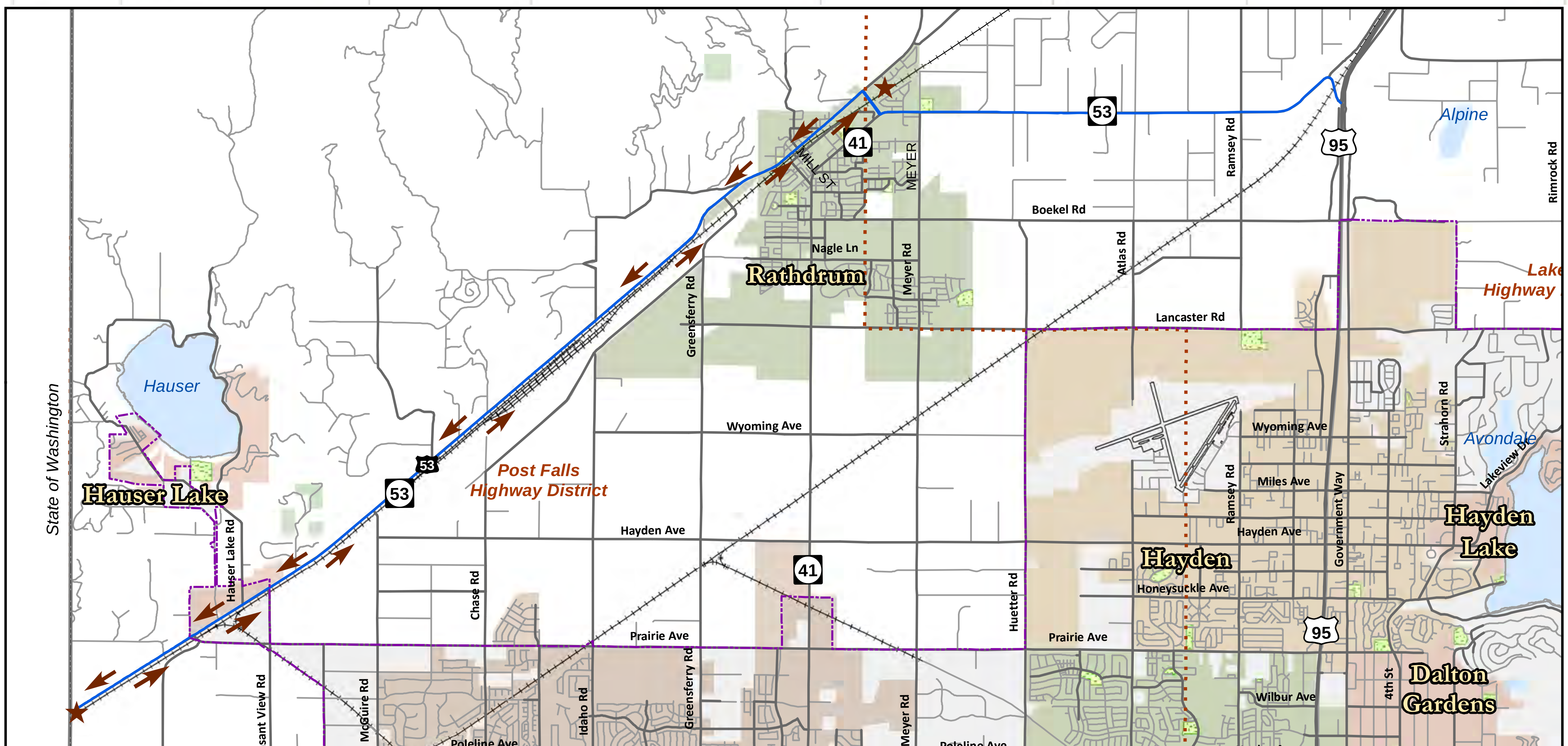
Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- National Forests
- Parks

* Data based on best available information
* Data for illustrative purposes only

KOOTENAI METROPOLITAN AREA TRANSPORTATION PLAN
2020 - 2040

Time Period	Roadway and Direction of Travel	Congested Travel Time (min, sec)	Freeflow* Travel Time (min, sec), quickest actual travel time	Difference (min, sec) Congested - Freeflow	Segment Length (miles)	Corridor Delay Per Mile Diff = Congested - Freeflow Travel/Distance
AM Period	SH 53 Eastbound State Line to US 95	18 min 27 sec	16 min 57 sec	1 min 30 sec	9.4	9.6 sec
AM Period	SH 53 Westbound US 95 to Seltice Way	19 min 02 sec	16 min 41 sec	2 min 21 sec	9.4	15 sec
PM Period	SH 53 Eastbound State Line to US 95	18 min 25 sec	17 min 05 sec	1 min20 sec	9.4	8.5 sec
PM Period	SH 53 Westbound US 95 to Seltice Way	19 min 27 sec	16 min 57 sec	1 min 20 sec	9.4	8.5 sec



SH 53 EXISTING AVERAGE TRAVEL TIMES

SEGMENT TRAVEL TIMES TIME IN SECONDS

Time Congested
Time Freeflow

"Congested" travel times were determined by measuring actual driving times. The route was driven five times in the morning (6:30 - 8:30 am) and five times in the evening (4:00 - 6:00 pm). "Congested" times shown are the highest five-run average, and may be either am or pm.

Direction of Travel

Beginning & Ending Points Segment

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- Water Features
- Parks

Source: KMPO Staff 2016 Data

N W E S

* Data based on best available information
* Data for illustrative purposes only

ROADWAY SEGMENT SERVICE LEVELS

The level of service (LOS) of a roadway is a letter grade from A to F, with A representing the best traffic flow conditions and F representing the most congested. The Highway Capacity Manual and AASHTO - Geometric Design of Highways and Streets ("Green Book") list the following levels of service:

- **LOS A**: Free flow. Traffic is flowing at or above the posted speed limit and all motorists have complete, unrestricted mobility between lanes.
- **LOS B**: Reasonably free flow. Traffic is slightly more congested, with some impingement of maneuverability. Two motorists may be forced to drive side by side, limiting lane changes. LOS B does not indicate a reduced speed from LOS A.
- **LOS C**: Stable flow. There is more congestion than present at LOS B, and the ability to pass or change lanes is not always assured. At LOS C, most experienced drivers are comfortable, roads remain safely below but efficiently close to capacity, and posted speed is maintained.
- **LOS D**: Approaching unstable flow. At this level of service, speeds are somewhat reduced from posted levels, motorists are hemmed in by other cars and trucks. This is perhaps the level of service of a busy shopping corridor in the middle of a weekday or a functional urban highway during commuting hours. In busier urban areas this level of service is sometimes the goal for peak hours, as attaining LOS C would require a prohibitive cost in bypass roads and lane additions.
- **LOS E**: Unstable flow. At this level of service, traffic flow becomes irregular and speeds vary rapidly but rarely reach the posted limit. LOS E indicates a road has exceeded its designed capacity.
- **LOS F**: Forced or breakdown flow. This level of service describes an extremely poor performance level, for which travel time cannot be predicted. Flow is forced; every vehicle moves in lockstep with the vehicle in front of it, with frequent drops in speed to nearly zero mph.

DETERMINING ROADWAY LEVELS OF SERVICE

For regional planning purposes, KMPO uses a simplified LOS evaluation to determine the performance of roadway segments along with generalized performance measures for intersections. This is because, at the regional level, detailed operational analyses are neither practical nor necessary to identify major system deficiencies. At the project stage, jurisdictions are advised to adhere to level of service analysis methods recommended in the Highway Capacity Manual. KMPO determines level of service by first completing the following equation for each roadway:

Level of service = Ratio of Volume to Capacity

"Volume" is the number of vehicles that travel through a given point within a certain time period. KMPO examines AM and PM peak hour volumes to identify major deficiencies in the regional network.

"Roadway capacity" is the assumed maximum number of cars per hour that a roadway can carry. For regional planning purposes, KMPO generally assumes lane capacities based on the functional classification of the roadway (Table 3.3); though in some cases, assigned capacities are adjusted if the actual roadway capacity is known to be significantly affected by lane width, surface condition, on-street parking, number of access points, or other factors.

Table 3.3 General Roadway Capacities

Roadway Classification	Urban Capacity (vphpl)	Rural Capacity (vphpl)
Interstate	2000	1800
Ramp	1500	1000
Principal Arterial	1500	1200
Minor Arterial	1200	1000
Urban Collector	1000	--
Rural Major Collector	--	800
Rural Minor Collector	--	600
Local Street	600	400

Table 3.4 shows the volume to capacity ratios KMPO uses to estimate roadway and intersection levels of service in the AM and PM peak hour.

Table 3.4 Roadway Segment and Intersection Hourly Level of Service Criteria

Roadway Segment LOS	Volume to Capacity Ratio
A	< 0.60
B	0.61 to 0.70
C	0.71 to 0.80
D	0.81 to 0.90
E	0.91 to 1.00
F	>1.0

It is also important to note that establishing daily service levels is highly subjective. A roadway might operate at LOS D for the AM peak hour on one day; have traffic consistent with LOS C at mid-day; operate at LOS A at night, E or F at other times; and come to a halt once every few weeks.

Figures 3.7 to 3.11 identify roadway sections that have a modeled volume-to-capacity (v/c) ratio greater than 0.70 (LOS C – LOS F) in the AM peak and PM peak hour.

These roadway deficiencies are also detailed in Tables D.1 and D.2, found in Appendix D, along with intersection deficiencies (see Intersection Performance, below). Information presented in Figures 3.7 through 3.11 are intended to convey relative roadway performance in the regional system, not exact service levels. This information should not be substituted for professional traffic engineering analysis at the project-level. Table 3.7 lists the number of roadway sections with a LOS greater than 0.7 by jurisdiction for the PM peak hour.

Table 3.5 Roadway Segments by Jurisdiction with LOS C – F, PM PK HR

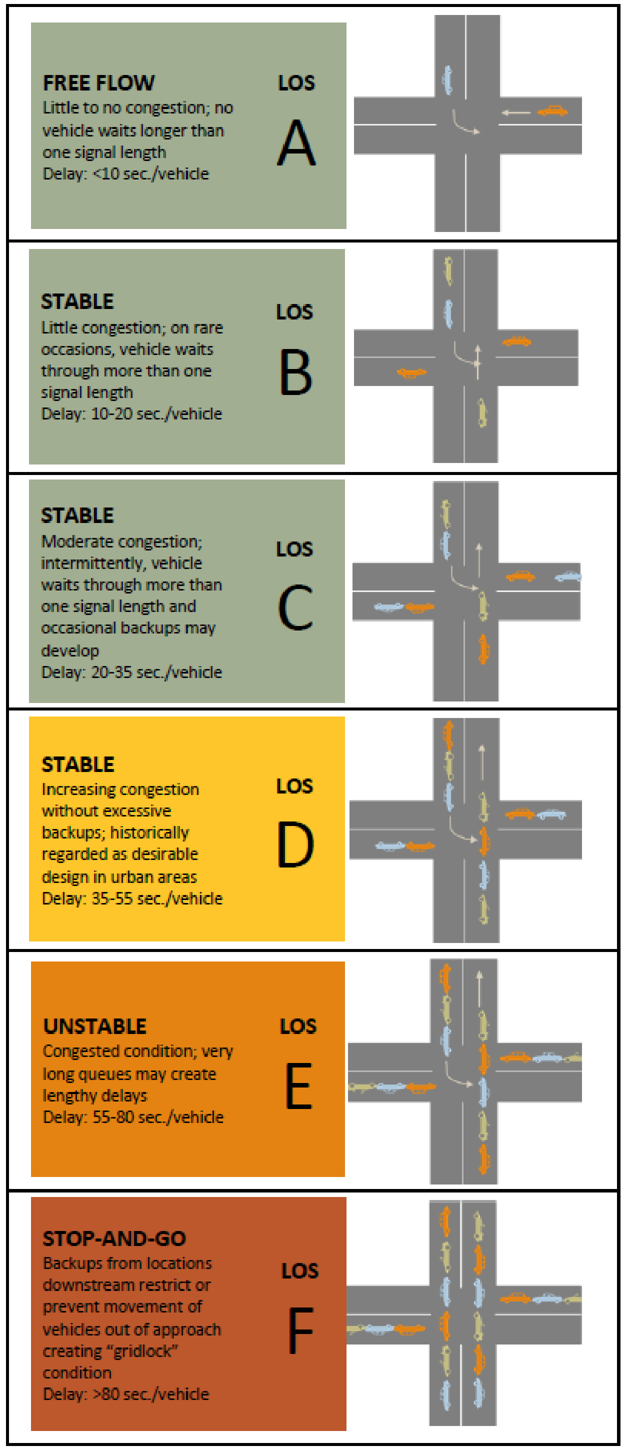
	Level C - >70%	Level D - >80%	Level E - >90%	Level F - >100%
ITD	14	3	1	2
Coeur d'Alene	22	14	3	1
Post Falls	0	0	0	0
Hayden	0	0	0	0
Rathdrum	0	0	0	0
PFHD	4	0	0	0
LHD	0	0	1	0
WHD	0	0	0	0
ESHD	0	0	0	0
Dalton Gardens	2	1	0	0
Total	**42**	**18**	**5**	**3**

INTERSECTION PERFORMANCE

The actual level of service experienced on any given roadway often has more to do with conditions at intersections than on the roadway segments between intersections. Figure 3.8 illustrates the different levels of service at intersections.

For regional planning purposes, KMPO evaluates intersections using a simplified volume-to-capacity (v/c) ratio estimate. The estimates are not based on the same Highway Capacity Manual calculation used to develop detailed intersection levels of service. Therefore, the v/c ratios reported by the travel demand model should only be used in comparison with one another and not used to compare with v/c ratios calculated by the Highway Capacity Manual procedures.

Figure 3.8 Illustration of Intersection Level of Service



Similar to the method for determining roadway levels of service, KMPO uses the following equation to determine intersection performance:

Level of service = Ratio of Volume to Capacity

"Volume" refers to the number of vehicles that pass through an intersection per hour.

For KMPO's intersection levels of service calculations, "capacity" is the assumed maximum number of cars per hour that can travel through an intersection in all directions. In the travel demand model, capacity is based on the approach volumes and capacities of the individual streets entering the intersection and the type of intersection control (traffic signal, stop sign, yield, etc.).

Based on the KMPO's procedures for calculating v/c ratios, the travel demand model indicates there are several intersections operating at v/c ratios above 0.80. In some circumstances v/c ratios exceed the design capacity of the intersection, resulting in significant delays and often a redistribution of trips to adjacent streets in order to improve travel times.

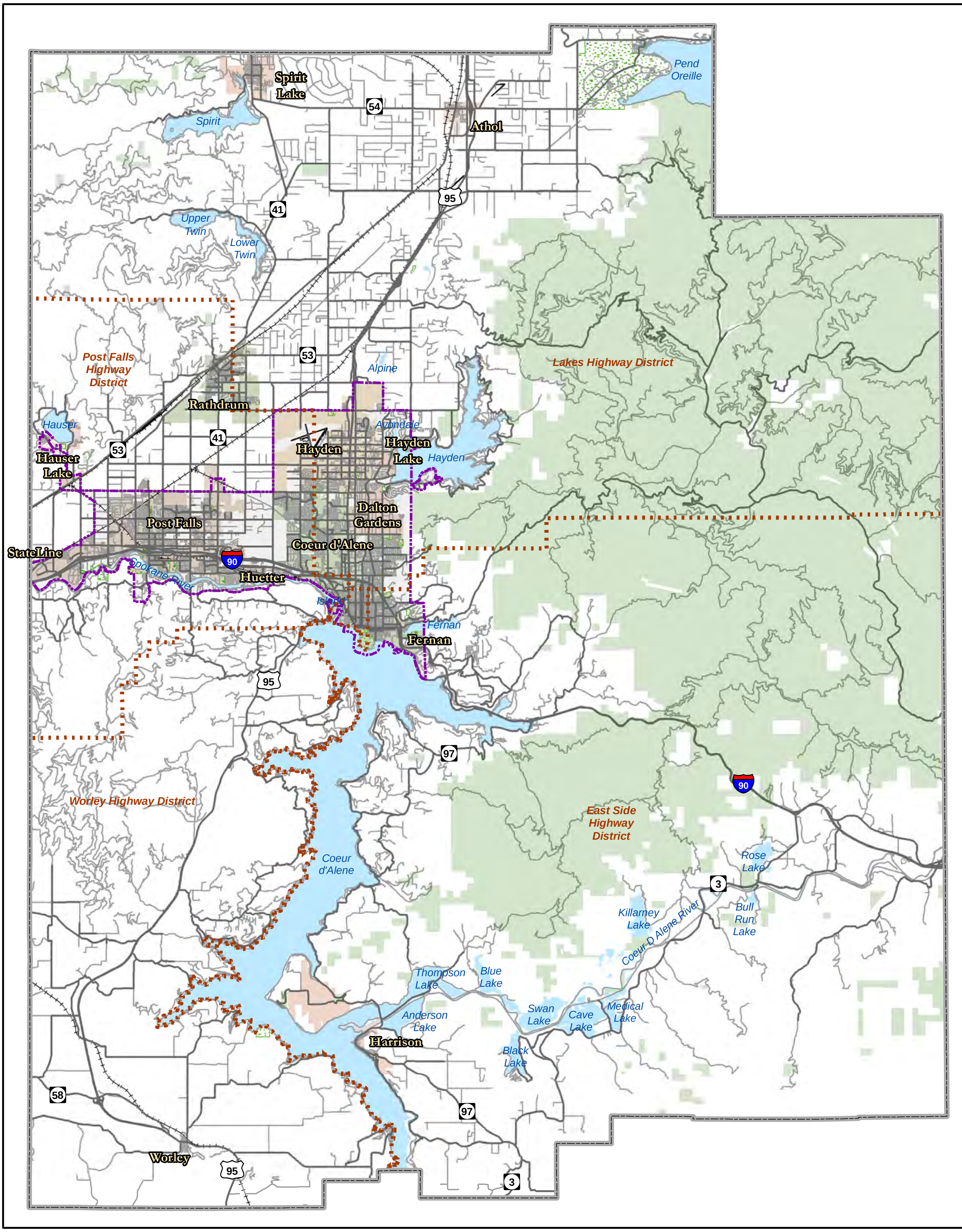
Figures 3.9 and 3.10 identify intersections that have modeled volume to capacity ratios greater than 0.8 (LOS D – LOS F). Table 3.6 lists the number of intersections with a LOS greater than 0.8 by jurisdiction for the PM peak hour. Detailed evaluation of these intersections by the appropriate jurisdiction is recommended, as the intersections may currently experience excessive delay, hampering the overall performance of the regional system.

Table 3.6 Intersections by Jurisdiction with LOS D – F, PM PK HR

	Level D - >80%	Level E - >90%	Level F - >100%
ITD	8	6	0
Coeur d'Alene	9	2	2
Post Falls	0	0	0
Hayden	0	0	0
Rathdrum	0	0	0
PFHD	0	0	0
LHD	0	0	1
WHD	0	0	0
ESHD	0	0	0
Total	**17**	**8**	**3**

Intersection and roadway section deficiencies are further detailed in Table D.3 and D.4 in Appendix D.

The 2018 Base model VISUM version file used for this MTP update is KMPO_2018_Base 12-9-19.



EXISTING CONDITIONS 2018 MODEL AM PEAK LEVEL OF SERVICE, RURAL, KOOTENAI COUNTY

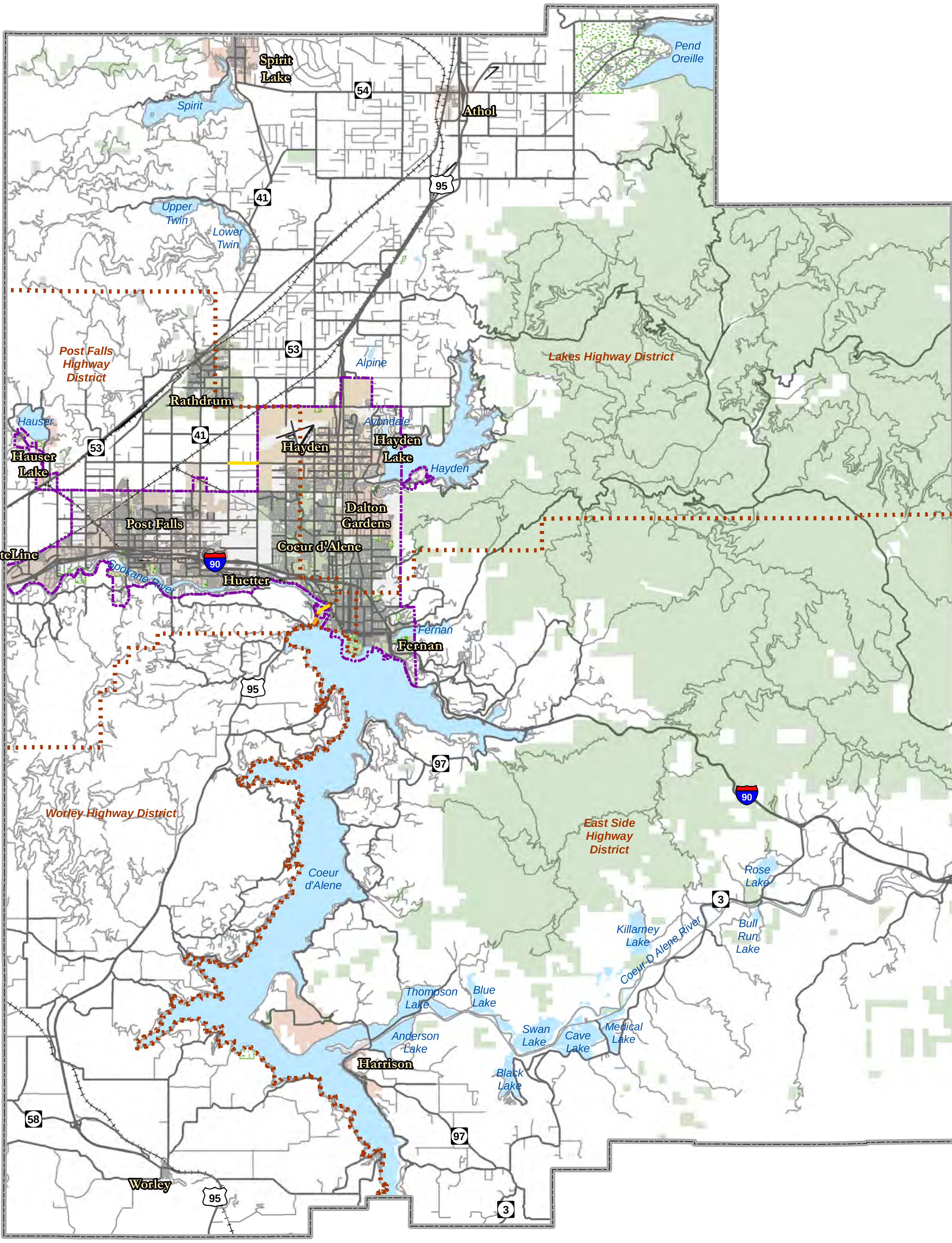
Link V/C Ratios
- Level C - > 70%
- Level D - > 80%
- Level E - > 90%
- Level F - >100%

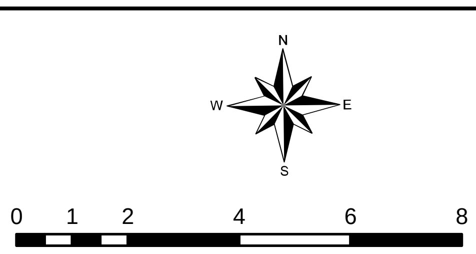
Node V/C Ratios
- > 80%
- > 90%
- >100%

Physical Characteristics
- Highway Districts
- Roads
- Railroad
- Urban Area Boundary
- County Boundary
- National Forests
- Water_Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.9a





Kootenai MPO

EXISTING CONDITIONS 2018 MODEL PM PEAK LEVEL OF SERVICE, RURAL, KOOTENAI COUNTY

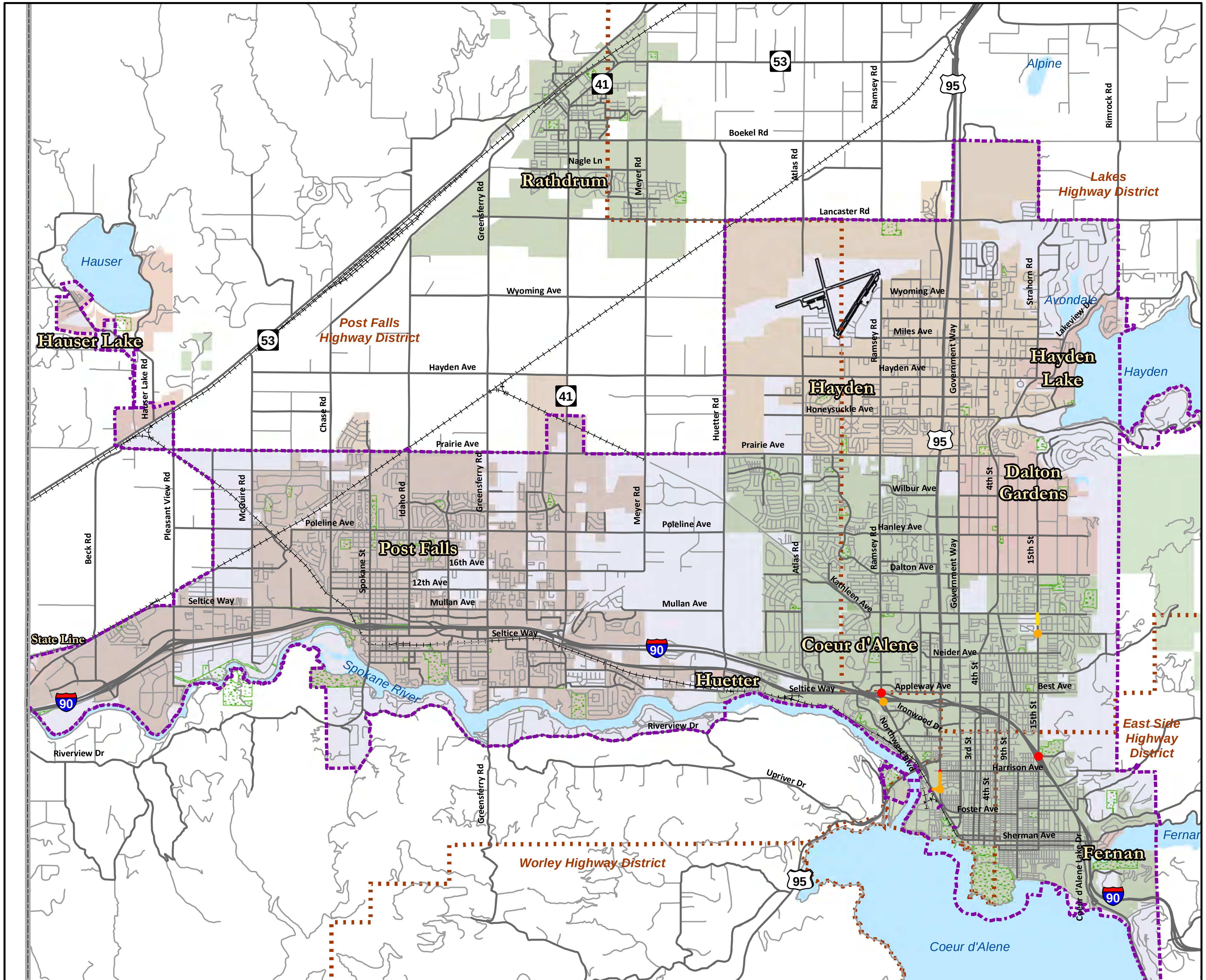
Link V/C Ratios
- Level C - > 70%
- Level D - > 80%
- Level E - > 90%
- Level F - >100%

Node V/C Ratios
- > 80%
- > 90%
- > 100%

Physical Characteristics
- Highway Districts
- Roads
- Railroad
- Urban Area Boundary
- County Boundary
- National Forests
- Water_Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.9b



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

EXISTING CONDITIONS 2018 BUILD AM PEAK LEVEL OF SERVICE, URBAN AREA

Link V/C Ratios

- Level C - > 70%
- Level D - > 80%
- Level E - > 90%
- Level F - >100%

Node V/C Ratios

- > 80%
- > 90%
- >100%

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- National Forests
- Water_Features
- Parks

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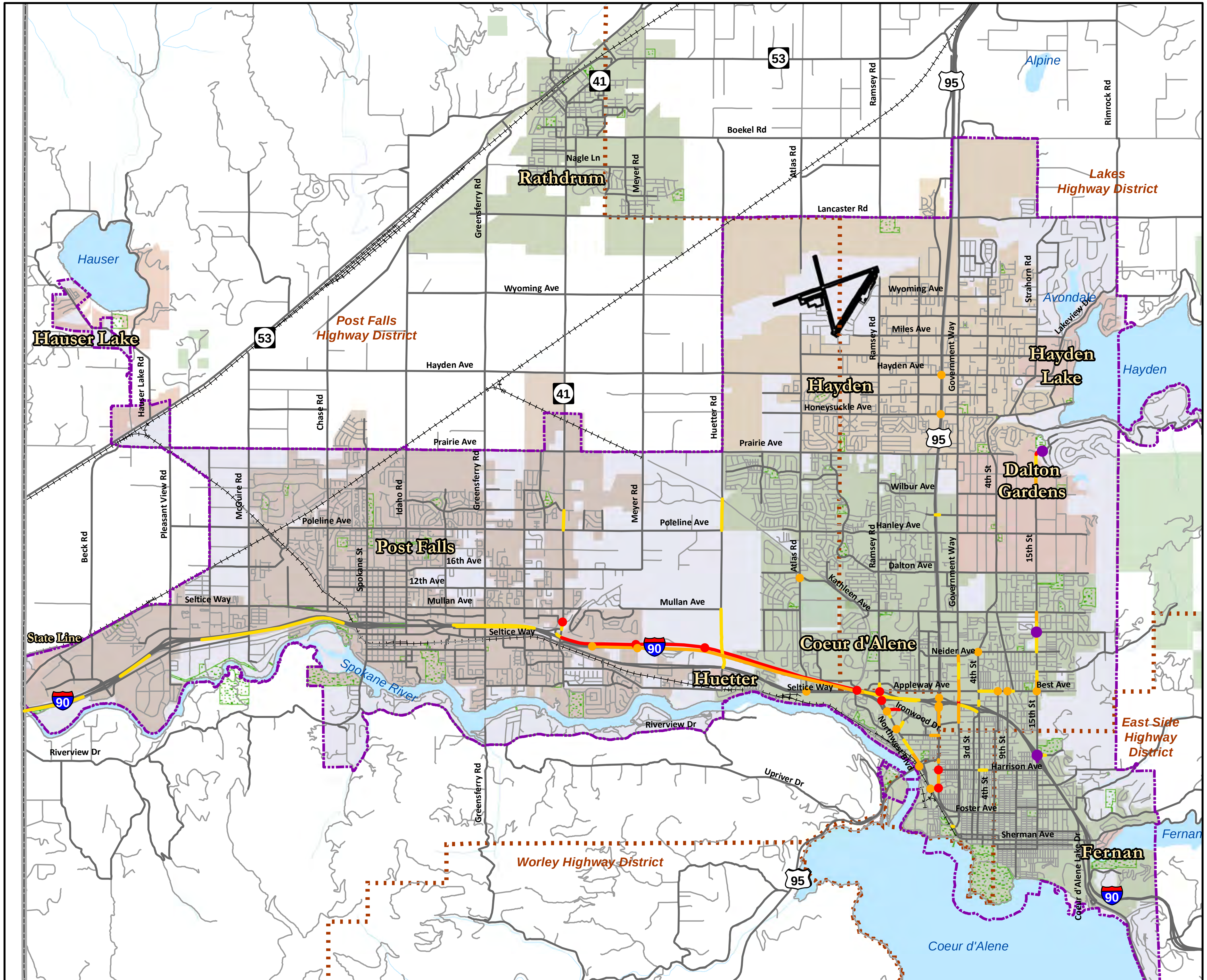
Miles

Kootenai MPO

*Data based on best available information. *Data for illustrative purposes only.



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

EXISTING CONDITIONS 2018 BUILD PM PEAK LEVEL OF SERVICE, URBAN AREA

Link V/C Ratios

- Level C - > 70%
- Level D - > 80%
- Level E - > 90%
- Level F - >100%

Node V/C Ratios

- > 80%
- > 90%
- > 100%

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- National Forests
- Water_Features
- Parks

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Miles

Kootenai MPO

*Data based on best available information. *Data for illustrative purposes only.

TRAFFIC SAFETY

Accident information for 2018 provided by Idaho Transportation Department's Office of Highway Safety is contained in Table 3.7. Table 3.8 shows collision statistics for Kootenai County for the 3-year period from 2016 through 2018.

Trends in the locations of collisions over time provide an additional perspective on traffic safety. Figures 3.11a-b and Table 3.9 identify the locations with the highest number of collisions over the 10-year period from January 2009 through 2018.

Table 3.7 Fatality and Injury Rates in 2018

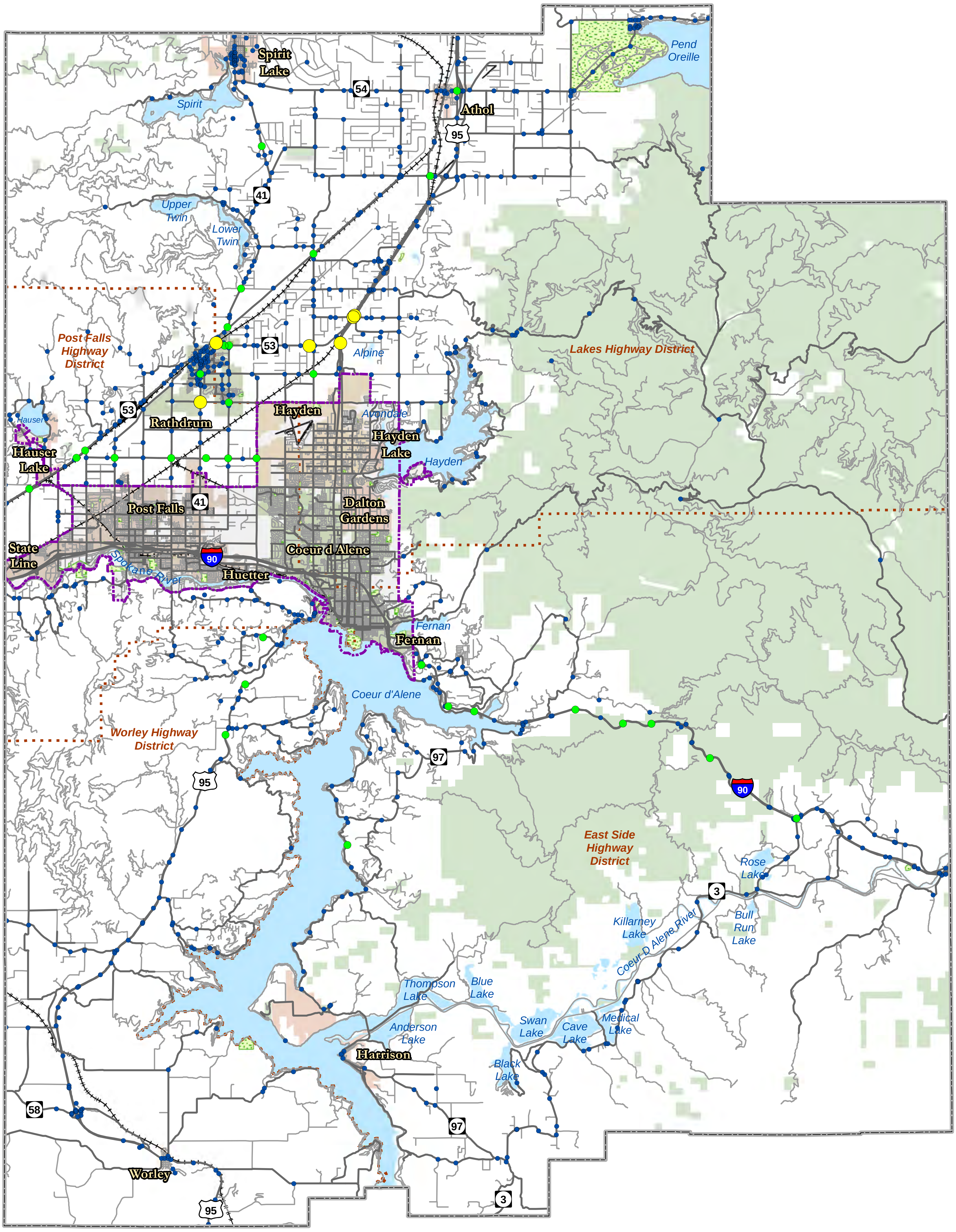
Area	Number of Persons		Fatal and Injury Crash Rate per 1,000 Population	Mean Fatal and Injury Rate for Areas with Similar Population (Statewide)
	Killed	**Injured**		
County wide	18	1,072	4.9	5.6
Coeur d'Alene	1	422	6.2	6.3
Post Falls	0	158	3.6	3.6
Hayden	1	83	3.7	3.6
Rathdrum	0	41	2.8	3.4
Dalton Gardens	0	4	1.7	1.5

Source: *Idaho Traffic Crashes 2018*, Idaho Department of Transportation Office of Highway Safety

Table 3.8 Collision History, 2016-2018

Area	Fatal Collisions			Injury Collisions			Total Collisions		
	2016	**2017**	**2018**	**2016**	**2017**	**2018**	**2016**	**2017**	2018
County wide	13	18	18	885	811	776	2,380	2,471	2,290
Coeur d'Alene	2	3	1	362	343	317	987	990	907
Post Falls	1	2	0	132	129	124	336	405	362
Hayden	1	0	1	71	54	55	171	183	167
Rathdrum	0	0	0	30	17	24	68	50	70
Dalton Gardens	0	0	0	2	7	4	15	17	17

Source: *Idaho Traffic Crashes 2018*, Idaho Department of Transportation Office of Highway Safety



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Miles

Kootenai MPO

COLLISION DATA 2009-2018
RURAL, KOOTENAI COUNTY

Number of Collisions

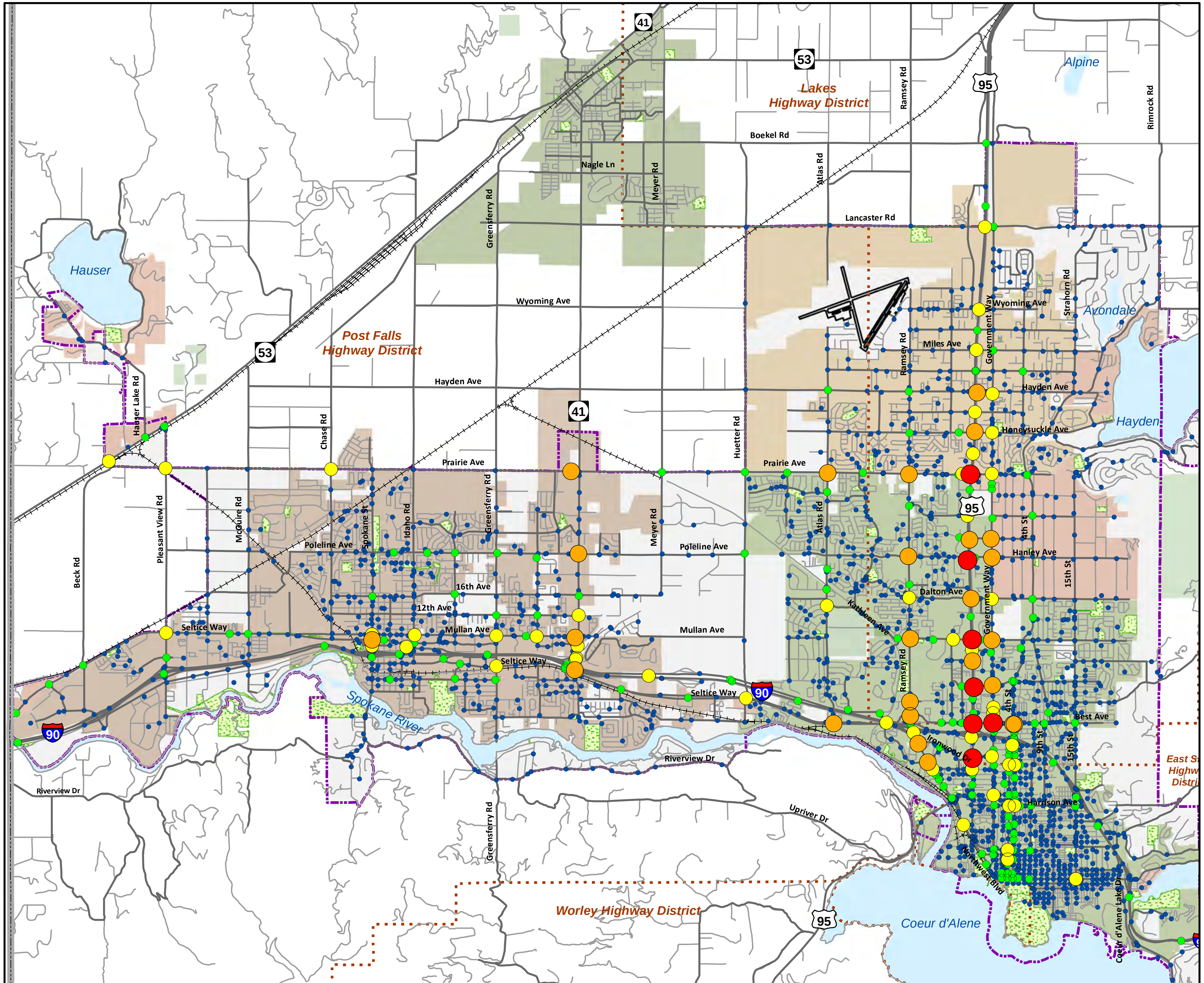
- 100 - 194
- 50 - 100
- 25 - 50
- 10 - 25
- 1 - 10

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- Urban Area Boundary
- County Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only. Source: ITD WebCARS

Figure 3.11a



KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040

COLLISION DATA 2009 - 2018
URBAN AREA

Number of Collisions

- 100 - 194
- 50 - 100
- 25 - 50
- 10 - 25
- 1 - 10

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- County Boundary
- Urban Area Boundary
- National Forests
- Water Features
- Parks

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0 0.5 1 2
Miles

*Data based on best available information. *Data for illustrative purposes only. Source: ITD's WebCARS

Table 3.9 Kootenai County High Collision Locations, 2009-2018

Intersection	Location	# of Collisions
Appleway Ave & Lincoln Way	Coeur d'Alene	194
Kathleen Ave & US 95	Coeur d'Alene	169
Appleway Ave & Government Way	Coeur d'Alene	164
Ironwood Dr & Lincoln Way	Coeur d'Alene	164
Prairie Ave & US 95	Hayden	139
4th St & Best Ave/Appleway Ave	Coeur d'Alene	139
Hanley Ave & US 95	Coeur d'Alene	138
Neider Ave & US 95	Coeur d'Alene	102
Prairie Ave & Ramsey Rd	Hayden	98
Government Way & Neider Ave	Coeur d'Alene	88
Hayden Ave & US 95	Hayden	80
Government Way & Kathleen Ave	Coeur d'Alene	76
Appleway Ave & Ramsey Rd	Coeur d'Alene	75
Canfield Ave & US 95	Coeur d'Alene	71
Mullan Ave & SH 41	Post Falls	71
Canfield Ave & Government Way	Coeur d'Alene	68
Lakewood Dr & Northwest Blvd	Coeur d'Alene	68
Hanley Ave & Ramsey Rd	Coeur d'Alene	67
Golf Course Rd & Ramsey Rd	Coeur d'Alene	65
Government Way & Hanley Ave	Coeur d'Alene	65
Dalton Ave & US 95	Coeur d'Alene	63
Kathleen Ave & Ramsey Rd	Coeur d'Alene	63
Poleline Ave & SH 41	Post Falls	63
Honeysuckle Ave & US 95	Hayden	61
Seltice Way & Spokane St	Post Falls	61
SH 41 & Seltice Way	Post Falls	60
Ironwood Dr & Northwest Blvd	Coeur d'Alene	56
Atlas Rd & Seltice Way	Coeur d'Alene	53
Prairie Ave & SH 41	Post Falls	53
Bosanko Ave & US 95	Coeur d'Alene	52
Atlas Rd & Prairie Ave	Hayden	51
Pleasant View Rd & Prairie Ave	Post Falls	50
SH 41 & SH 53	Rathdrum	49
3rd St & Locust Ave	Coeur d'Alene	48
4th St & Locust Ave	Coeur d'Alene	48
Government Way & Ironwood Dr	Coeur d'Alene	48
Northwest Blvd & Seltice Way	Coeur d'Alene	48
Dalton Ave & Government Way	Coeur d'Alene	47
Huetter Rd & Seltice Way	Huetter	46
SH 53 & US 95	Hayden	46
Greensferry Rd & Seltice Way	Post Falls	45
Government Way & Prairie Ave	Hayden	44
12th Ave & SH 41	Post Falls	43
Cecil Rd & Mullan Ave	Post Falls	43
Dalton Ave & Ramsey Rd	Coeur d'Alene	43
Government Way & Honeysuckle Ave	Hayden	43

Source: Idaho Transportation Department Office of Highway Safety

RAIL CROSSING SAFETY & COMPATIBILITY

KMPO's primary focus related to rail operations in Kootenai County is on safety and efficiency of our roadways at rail-roadway crossing locations. Across Kootenai County, two Class I railroads parallel each other over a distance of 41 miles. The Burlington Northern-Santa Fe (BNSF) railroad operates the northern tier of their transcontinental main line, and the Union Pacific (UP) railroad operates a main line connecting Oregon to Mexico and Canada.

In Kootenai County, there are 23 at-grade crossings on the UP main line and seven on the BNSF main line (Figure 3.12). There are three additional grade crossings on the UP spur and 20 additional crossings on the BNSF spur through Post Falls and Huetter.

Recent statistics show that the number of Kootenai County's rail crossing incidents has dropped by almost 50% compared to the previous 10-year period[1], from 42 incidents from 2000-2010 to 23 incidents from 2010-2019 (Table 3.10). This may be attributed the number of safety improvements, such as the addition of crossing gates and crossing closures, at a number of grade crossings in Kootenai County. Kootenai County incidents make up about 14% of the 159 incidents that occurred in Idaho in the last 10 years. Although rates have decreased, these statistics continue to highlight the importance of the strategies identified in KMPO's "Bridging the Valley" initiative described in Section 1.

Table 3.10 Grade Crossing Collision Summary (2010 - 2019)

Grade Crossing	Collisions				
	Railroad	Total[a]	Fatality[b]	Injury[b]	PDO[b]
Mill St	BNSF	1			1
Prairie Ave	BNSF	1			1
Ramsey Rd	BNSF	2	1		1
Private	BNSF	2		1	1
Homestead Rd	BNSF	1			1
Brunner Rd	UP	1			1
Idaho Rd	UP	1			1
Watkins St/SH 54	UP	1	1		
Spokane St	UP	4	1	1	3
Guy Rd	UP	1			1
Huetter Rd	UP	1		2	
Private Rd	UP	1			1
Lancaster Rd	UP	1			1
Grange Ave	UP	1		1	
Ramsey Rd	UP	1	1		
Totals		**20**	**4**	**5**	**13**

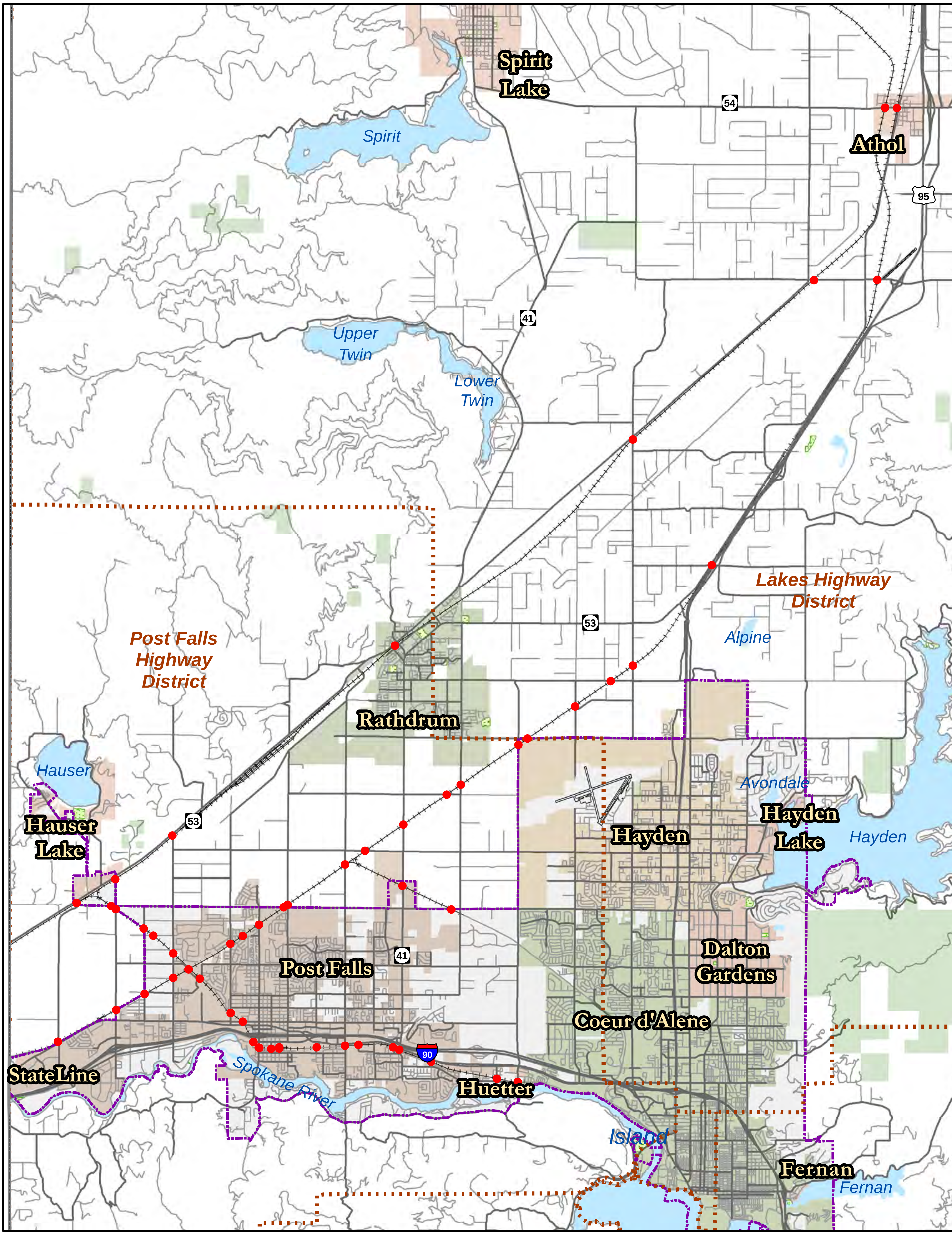
a. "Total" reflects number of total collisions.
b. Fatalities and injuries reflect number of people involved in the collision. Property Damage Only (PDO) reflects the number of collisions. For example, if three fatalities occurred in one collision, a three would be reported.

Source: "Highway-Rail Incidents Reported on Form FRA F 6180-57." Federal Railroad Administration, Office of Safety Analysis

In addition – while not a safety consideration – KMPO has also adopted a regional policy on Railroad Quiet Zones, to set the stage for addressing incompatible land use encroachment upon the BNSF and UP rail lines that have operated in Kootenai County since the late 1800's. The Policy can be found on KMPO's website www.kmpo.net.

[1] Office of Safety Analysis, Federal Railroad Administration.

KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040



EXISTING AT-GRADE RAIL CROSSINGS, URBAN, KOOTENAI COUNTY

At-Grade Rail Crossings

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- Urban Area Boundary
- County Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.12

FREIGHT MOBILITY

Understanding freight flows in the region is one of the initial steps needed to gain a clear understanding of the economic activity of the area and how that affects the transportation network. The Inland Pacific Hub (IPH) was a project to understand the aspects of the Inland Pacific Region and its potential as a multi-modal global gateway to increase international commerce. The area included in the regional analysis encompassed ten counties in Eastern Washington and nine counties in Northern Idaho, which included Kootenai County.

The pie charts below (Figures 3.13 and 3.14) depict the top ten inbound and outbound commodities by percentage of the tonnage shipped for the central part of the IPH region, including Kootenai County. The left pie chart shows 2007's distribution, while the right pie chart shows the forecasted 2027 distribution. Figure 3.15 shows the top commodities in Idaho by tonnage for 2012 and their growth by 2040.

Figure 3.13 Central Counties Top Ten Inbound Commodities, 2007 and 2027

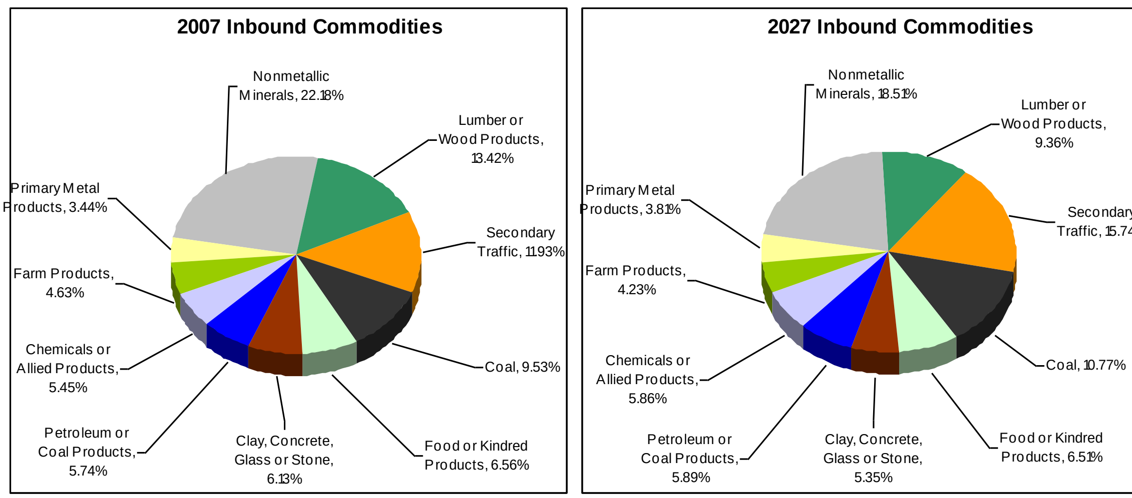


Figure 3.14 Central Counties Top Ten Outbound Commodities, 2007 and 2027

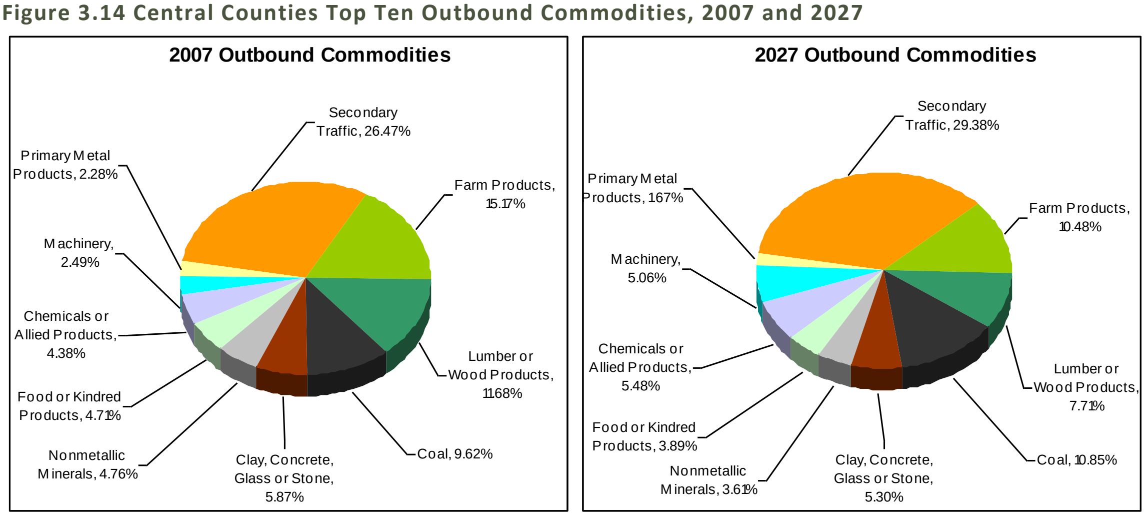
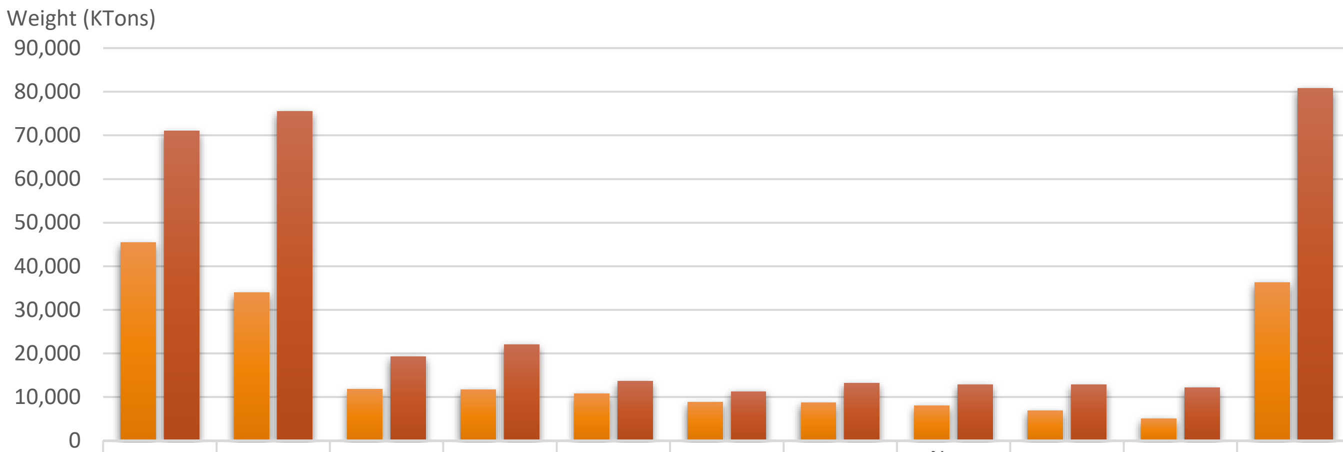


Figure 3.15 Idaho Top Commodities by Tonnage, 2012 and 2040



	Cereal Grains	Other Coal and Petroleum	Wood Products	Other Ag. Products	Gravel	Basic Chemicals	Fertilizers	Non-metal Mineral Products	Logs	Animal Feed	Other
2012	45431	33916	11792	11760	10826	8870	8749	8038	6884	5084	36313
2040	70980	75524	19286	22063	13658	11295	13192	12879	12842	12225	80801

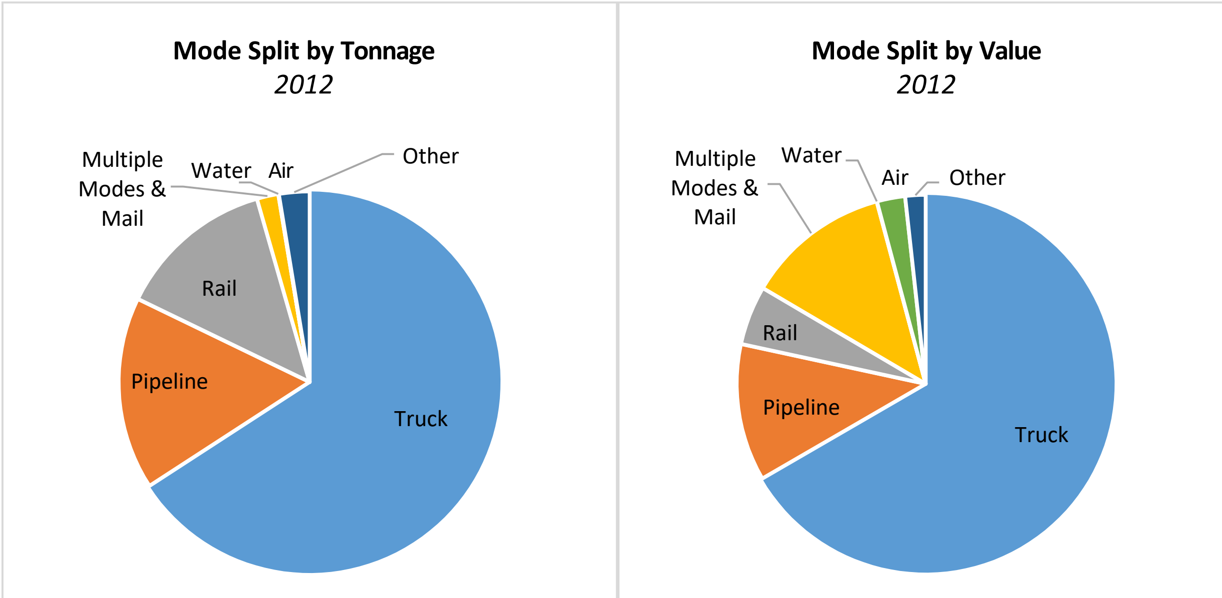
Source: ITD Freight Plan, 2017

Table 3.11 Kootenai County Outbound Distribution, 2007 and 2027

Outbound Tonnage		Local freight: Circulates within IPH Counties		Outbound to Western Destinations: Routes = I-90, US 2, US 12, US 20		Outbound to Eastern Destinations: Routes = I-90, US 2, US 12, ID 200		Outbound to Northern Destinations: Routes = US 95, US 195, US 395		Outbound to Southern Destinations: Routes = US 95, US 195, US 395	
Year	Data	Truck	Rail	Truck	Rail	Truck	Rail	Truck	Rail	Truck	Rail
2007	Tonnage	2,291,415	-	664,034	6,600	863,336	242,400	59,181	-	1,967,748	82,800
2027	Tonnage	2,088,825	-	820,660	11,488	1,216,161	184,666	105,519	-	2,508,693	57,649
	% vs 2007	(8.8%)	-	23.6%	74.1%	40.9%	(23.8%)	78.3%	-	27.5%	(30.4%)

The data shows that having a wide variety of commodities has and will continue to play an important role in the economic vitality of Kootenai County and surrounding areas. As such, freight, primarily provided by trucks and pipelines, will have an essential role in shipping and delivering those commodities, whether it is to a favorite restaurant, lumber mill, grocery store, or composites manufacturer. All require safe, efficient, reliable access to the regional transportation system in order to maintain and enhance the local, regional and state economy. Figure 3.17 illustrates the freight mode split by tonnage and value in Idaho.

Figure 3.16 Idaho Freight Mode Split by Tonnage and Value, 2012



Source: Idaho State Freight Plan, 2017

FREIGHT ROUTES

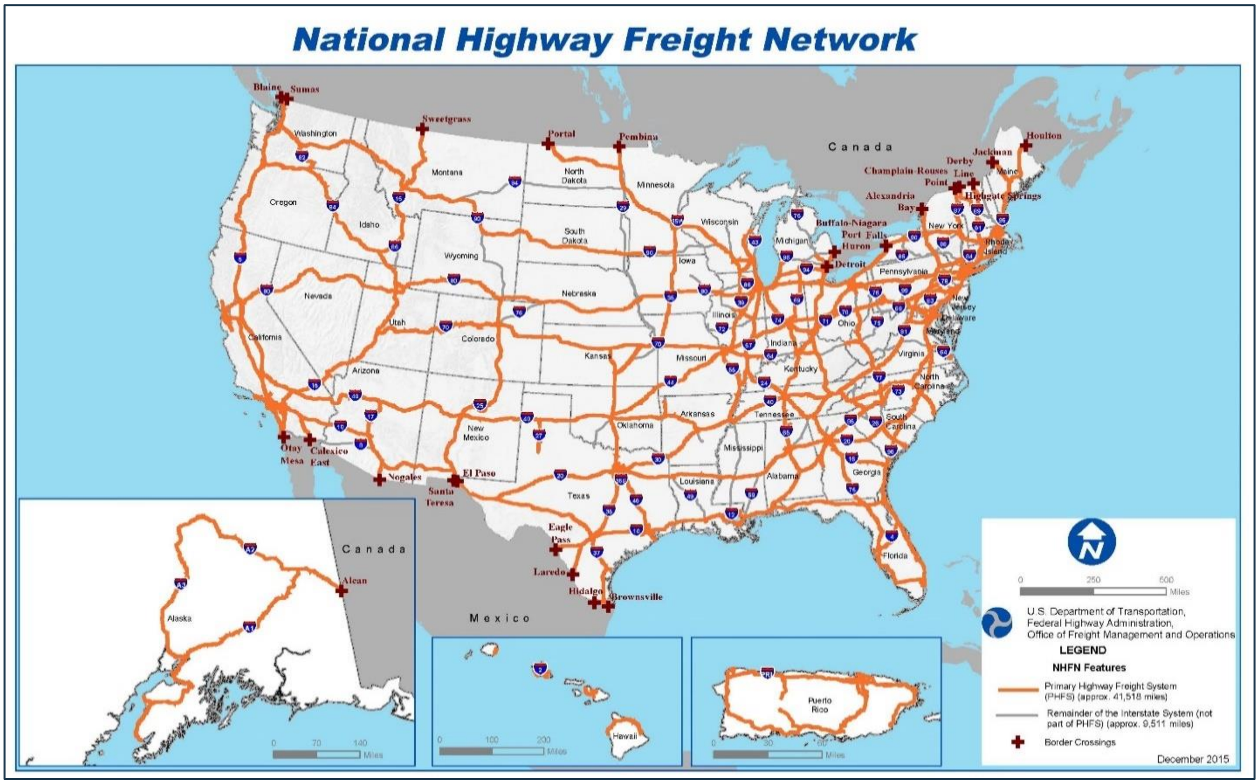
A transportation network's ability to move freight and goods to market is fundamental to an area's economic development. Several truck routes within or near Kootenai County are formally designated as National Highway System (NHS) 'Interstate' (I-90) and 'Other' (US-95, US-2) routes. Beginning with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), corridors have been designated in Federal transportation legislation as high priority corridors on the NHS for inclusion in the 163,000-mile approved NHS as specific routes or general corridors. The ISTEA designated 21 corridors. Subsequent legislation added additional corridors, and by the end of 2016, there were over 80 such corridors (including corridors that are subsumed or partly subsumed in other high priority corridor considerations such as designations from the Multimodal Transportation Network, National Freight Network, and Critical Urban and Rural Connectors). Figure 3.17 shows the current designation of the National Highway Freight Network (NHFN).

Table 3.12 National Statistics on Truck Travel

Vehicle Type	Urban and Rural Miles		Registered Vehicles		Average VMT per Year
	Billion VMT	**Percent**	**Billion VMT**	**Percent**	
Single-unit Trucks	109.3	3.6	8.3	3.2	13,123
Combination Trucks	169.8	5.6	2.6	1.0	65,897
All Vehicles	3,025.7	100.0	260.4	100.0	11,621

Source: https://ops.fhwa.dot.gov/freight/infrastructure/nfn/rptc/cp23hwyfreight/iii_ch11.htm#nhfn

Figure 3.17 Congressionally Designated National Highway Freight Network



Source: https://ops.fhwa.dot.gov/freight/infrastructure/nfn/maps/images/nhfn_assets/nhfn_map.jpg

I-90 ON THE NATIONAL FREIGHT NETWORK

Nationally, the data shows that while truck and freight movement is a relatively small percentage (4.2%) of overall vehicles, their actual travel, measured by vehicle miles of travel (VMT) is substantially higher. I-90 is an essential freight corridor for interstate commerce in and out of Kootenai County, as well as across the country—stretching from the West Coast ports of the Pacific Northwest to Boston. For this reason, it is included on the National Freight Network designated by the USDOT, Federal Highway Administration.

Interstate 90's direct access to west coast ports in Seattle and Tacoma provides the ability to receive and ship products as a result of import and export markets. Additionally, I-90 provides Inland Northwest products access to markets extending west to major markets such as Portland and Seattle, as well as east to Chicago.

OTHER PRIORITY CORRIDORS AND DESIGNATIONS

High Priority Trade Corridor #43 (US-95) extends from the Canadian border at Eastport, Idaho to the Oregon State border. US-95 is the only main north-south route in Idaho. Avoiding the metro area of Boise, US-95 serves the communities of Homedale, Payette, Grangeville, Lewiston, Moscow, Coeur d'Alene, Sandpoint, Bonners Ferry, and Eastport. Since there are no north-south Interstates that connect the panhandle of Idaho with regions to the south, US-95 has predominantly carried intra-state and limited interstate north-south traffic. This has been due to excessive travel times due to terrain and weather-related challenges between New Meadows and Lewiston that can adversely impact the cost of freight and goods movement.

This dominance in intra-state travel, however, is changing. ITD continues to make significant improvements to US-95 along the entire corridor. These improvements include lane and shoulder widening, bridge replacements, and building multi-lane road segments where increasing traffic volumes make a more limited access environment necessary. Such projects include the widening of US-95 from Worley to Coeur d’ Alene and the continued focus on widening projects from Coeur d’ Alene to Sandpoint.

These significant improvements have made travel times on US-95 (7 hrs. 12 min from Canada to I-84) competitive with the more traditional route of using I-84, US-395, and I-90 to reach Coeur d’ Alene (7hrs. 5 min) and eastern British Columbia. As roadway improvements continue, more interstate and

Table 3.13 Regionally Significant Urban and Rural Freight Corridors in Kootenai County

Route	Starting Point	End Point	Miles	Description
Urban Corridors				
W. Seltice Way	S. Ross Point Rd	Northwest Blvd	4.35	PFHS alternative corridor for I-90; Supports multiple freight generators including River City Fabrications, Cannon Hill Industries, MOR Manufacturing, Ground Force Worldwide, High Mountain Forest Products, and Idaho Army National Guard
US 95	I-90	SH 53	6.30	Direct access to I-90; carries intrastate, interstate, and international freight movements; provides access to industrial and manufacturing employers, as well as the Coeur d’Alene airport. (Connects to US 95 CUFC).
Rural Corridors				
US 95	Lancaster Rd	SH 53	2.08	Direct access to I-90; carries intrastate, interstate, and international freight movements; provides access to industrial and manufacturing employers, as well as the Coeur d’Alene airport. (Connects to US 95 CUFC).
SH 53	Washington Border (varied segments and mileposts)	US 95	14.31	Supports truck flow to/from Washington, Hauser Rail Yard, Coeur d’Alene Paving, MDM Construction quarry. 8.1% commercial traffic. 490-810 trucks daily depending on segment. Connects to US 95.
SH 54	SH 41	US 95	7.89	17%-25% commercial traffic depending on segment. Carries 510 trucks daily. Supports Merritt Lumber, Athol rail facility.

Source: ITD Freight Plan, 2017

International truck trips are expected to take advantage of US-95's shorter distance in order to access north Idaho and Canada into the future.

CRITICAL FREIGHT CONNECTORS

The FAST Act provided opportunities to include roads considered critical to providing freight access to either industries or commerce, as well as the National Freight Highway Network (NFHN). While limited in the number of miles each state could add to the NFHN (Idaho allowed 146 rural and 74 urban miles), ITD and the MPO's worked together to identify those Critical Urban or Rural Freight Corridors. In Kootenai County, those critical corridors are identified in the tables below.

FREIGHT CHALLENGES

There are substantial challenges to moving freight on a highway network that is projected to see continued increases in freight volume but may be difficult to expand in places to provide additional capacity. To address the challenges and ensure that the U.S. freight system and its highway network are prepared to support U.S. economic growth and competitiveness, freight stakeholders will need to understand and address the impact of increased freight movement on such areas as safety, reliability, efficiency, and the environment.

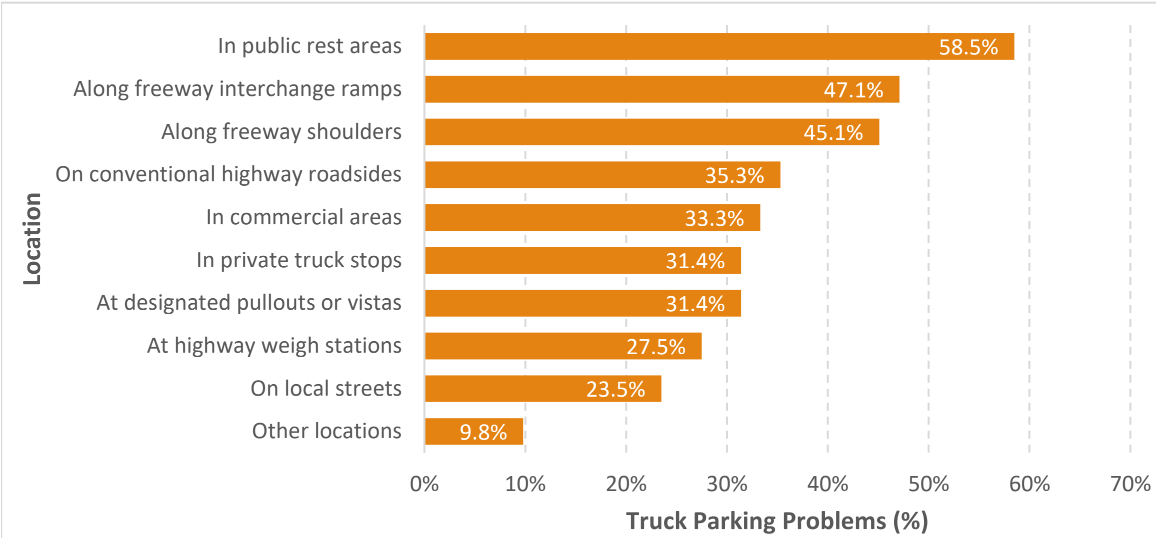
TRUCK PARKING

One of the major challenges to the effective movement of freight is that of safe and available truck parking. An inadequate supply of truck parking spaces can have negative consequences. Tired truck drivers may continue to drive because they have difficulty finding a place to park for rest. Truck drivers may choose to park at unsafe locations, such as on the shoulder of the road, exit ramps, or vacant lots, if they are unable to locate official, available parking. With the projected growth of truck traffic, the demand for truck parking will continue to outpace the supply of public and private parking facilities and could exacerbate truck parking problems experienced in many regions.

To address this concern, the *"Jason's Law Truck Parking Survey Results and Comparative Analysis"* report evaluated the adequacy of truck parking capacity across the Nation. FHWA worked with the American Association of State Highway and Transportation Officials (AASHTO) and other industry stakeholders to develop a truck parking survey that was responsive to a requirement in MAP-21. The survey was administered to every State in 2014. In addition, survey responses were provided by truck drivers, State motor carrier safety enforcement officials, travel plaza and truck stop owners and operators, trucking firm managers, and logistics personnel.

The survey results provided insight into issues associated with providing and maintaining commercial vehicle parking facilities and services, including shortages in geographic regions and a lack of truck parking information. The survey found that more than 75 percent of truck drivers responding said they regularly experienced problems with finding "safe parking locations when rest was needed." Ninety percent reported struggling to find safe parking at night. The report also documented the location of more than 308,000 truck

Figure 3.18 Locations of Truck Parking Problems Reported by States, 2014



Source: DOT, *"Jason's Law Truck Parking Survey Results and Comparative Analysis: Survey of State Departments of Transportation,"* Figure 9.

parking spaces, including 36,000 at public rest areas and nearly 273,000 at private truck stops.

Most States provided information on observed problems, including shortages and the existence of unofficial parking (parking in areas not designated for parking). Only limited information was reported on actual use of the parking facilities, maintenance, and future parking capacity plans.

The *Jason's Law* survey responses indicated that truck drivers were observed using other, unofficial parking places due to parking shortages. This is indicated in Figure 3.18, a chart showing the types of truck parking locations in which parking problems were reported by States in 2014.

ADDITIONAL FREIGHT CONSIDERATIONS

Freight mobility considerations for Kootenai County extend beyond the trucking operations of local and national carriers. Idaho is considered a "bridge" state, which means that a significant amount of freight originating in other states and Canada passes through Idaho on its way to ocean ports and other destinations across the nation. As mentioned previously, the economic benefits derived from pass through truck trips in Kootenai County are limited, and the additional wear and tear on pavement surfaces associated with heavy vehicles making pass-through trips can be significant. Existing truck routes are detailed in Figures 3.19a and 3.19b.

As part of the IPH study, an extensive outreach to stakeholders in the region was conducted. When operating on the regional highway system most of the companies interviewed indicated that the highways in the region were "adequate" with snow and fog being the only issues they sometimes encounter. A number of companies indicated the need for better highway facilities running north-south through the region. County roads, especially those that are gravel were a significant issue for some companies (logging, agriculture, and construction) because weight restrictions often close these roads for long periods of time.

The largest number of comments about the highway system focused on the regional population centers. Facilities and bottlenecks that were cited as being problematic in Kootenai County included:

- Coeur d'Alene, ID - low bridges and oversize load limits (**addressed by ITD in 2018**)
- Need for the construction of the Huetter Corridor to avoid congestion.
- Improved turning radius for turning trucks at intersections frequently used to ship and deliver products. This includes state highways and local arterials.
- Better signal timing progression on heavily used truck routes to avoid increased travel times caused by trucks' acceleration and deceleration issues.

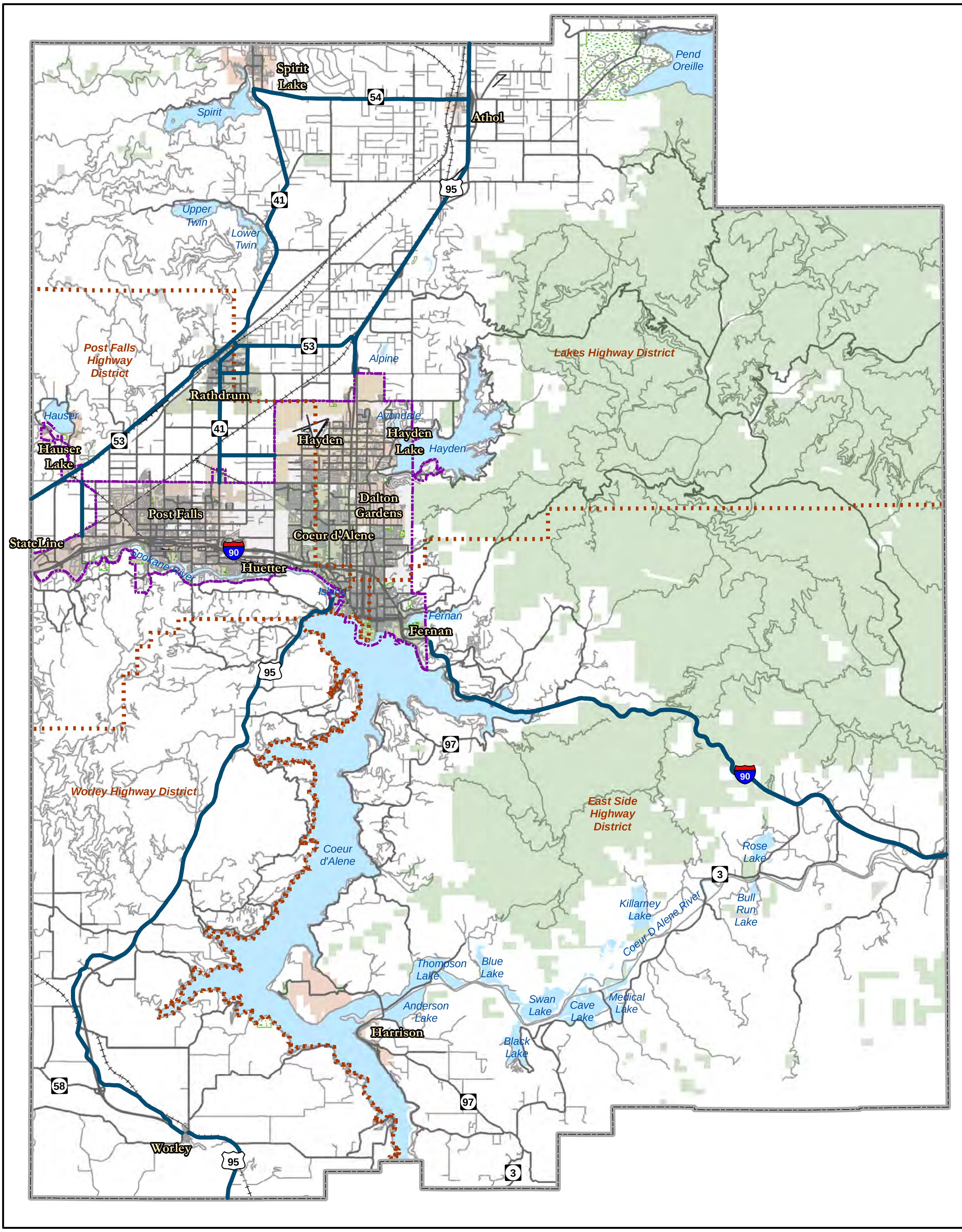
ITD maintains a Freight Strategic Plan, in order to strategically invest in the freight infrastructure to maximize capacity and efficiency on the existing system. ITD uses the performance measures listed in Table 3.18 to monitor performance on the State's system.

KMPO incorporates, by reference, the Idaho Freight Strategic Plan, which can be found at www.itd.idaho.gov/freight.

Table 3.14 Recommended Freight Performance Measures on Idaho Highways

ITD Performance Objective	Recommended Freight Performance Measure	Applicable AASHTO Goal Area	Data Source	Needs and Issues Addressed
Safety	Truck-Involved Crashes/Mile; Number of Truck-Involved Crashes	Safety	WebCars	Highway Safety
	Number of at-grade rail crossing incidents	Rail Safety	FRA	Highway Safety; Rail Safety
Mobility	% Modal Usage (Tons, Value)	Freight Movement and Economic Vitality	Transearch; FAF	Intermodal Connectivity; Truck Driver Shortage
Economic Vitality	Mileage Uncongested on the Interstate System	Freight Movement and Economic Vitality	NPMRDS	Truck Congestion/ Reliability
	Truck Travel Time Reliability on the Interstate System	Freight Movement and Economic Vitality	NPMRDS	Truck Congestion/ Reliability

Source: ITD Freight Plan, 2017



EXISTING TRUCK ROUTES, RURAL, KOOTENAI COUNTY

Truck Routes

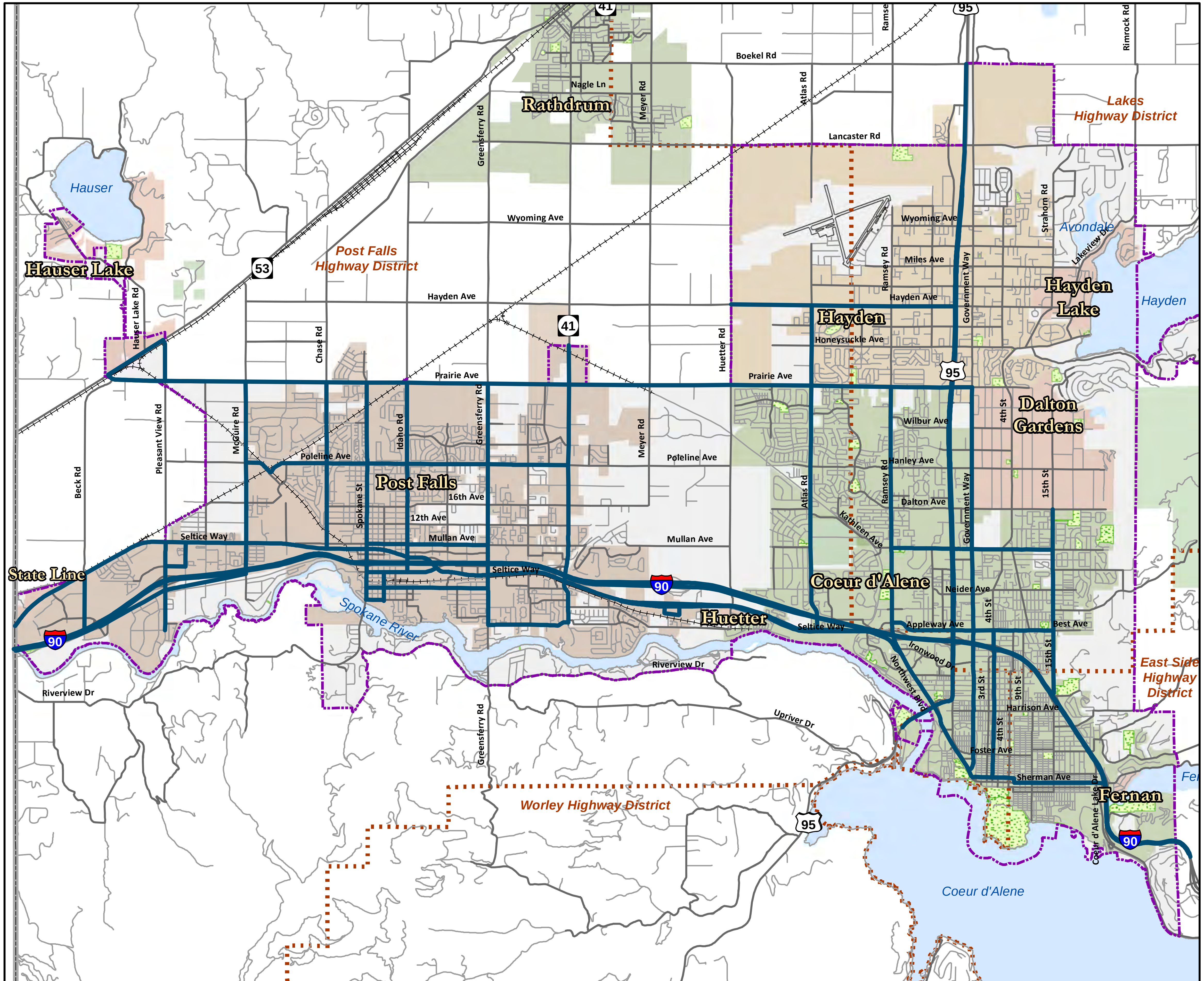
Physical Characteristics

- Highway Districts
- Roads
- Railroad
- County Boundary
- Urban Area Boundary
- National Forests
- Water_Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.19a

Figure 3.19b



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EXISTING TRUCK ROUTES, URBAN

Truck Routes

Physical Characteristics

- Highway Districts
- Roads
- Railroads
- Kootenai County
- Urban Area Boundary
- National Forests
- Water Features
- Parks

0 0.275 0.55 1.1 1.65 2.2
Miles

Kootenai MPO

*Data based on best available information. *Data for illustrative purposes only.

RAIL FREIGHT

Historically, rail shipping in Kootenai County has been dominated by shipments from lumber mills, although several smaller industries in the area, such as propane suppliers, also rely on rail transport for bulk products.

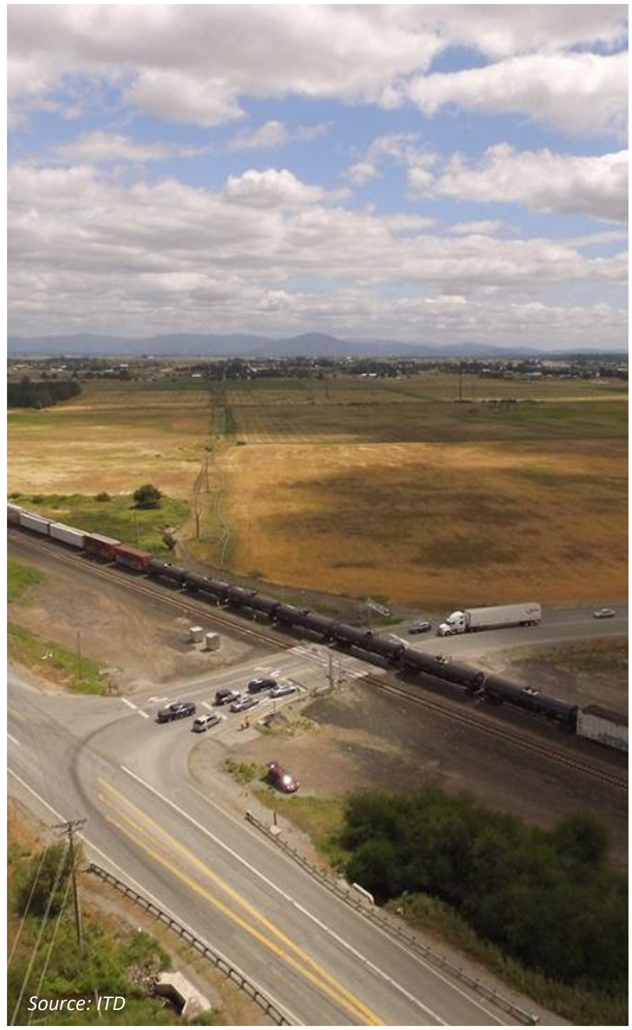
The Burlington Northern-Santa Fe (BNSF) and Union Pacific (UP) rail companies operate and maintain parallel main line tracks through Kootenai County. BNSF's main line, which provides direct service between Seattle/Tacoma/Portland and Chicago, was recently expanded with the addition of parallel tracks to reduce the need for sidings that were used for trains to pass by each other. Construction of a train refueling depot west of Rathdrum in 2004 helped to extend BNSF operations on the west coast without the need for refueling. BNSF is also in the process of constructing a parallel bridge across Lake Pend Oreille, which will help provide resiliency and additional capacity to the main line. BNSF can operate upwards of 60 to 80 trains per day on their main line through Kootenai County—the vast majority of which are through trains that only stop for fuel.

Union Pacific (UP), in Kootenai County and northern Idaho, has a separate and distinct operation from that of the BNSF. This is due to the fact that their rail service is provided on what is characterized as a "Branch Main." As a branch main, UP does not rely on this rail line to provide limited, fast, and direct access between west coast ports and the mid-west. That service is provided by their rail line that extends from Portland, OR to Omaha, NE or Chicago, IL. As a branch main line, UP offers greater opportunity for smaller shippers to have rail siding access. In addition, the UP line extends into Canada at Eastport, ID, providing local shippers access to Canadian Provinces and the east coast, through UP's operating partnership with Canadian Pacific Railway (CPR). The UP operates approximately eight trains per day, on average, on their branch main line, not including local operations that serve shipper rail sidings. The UP operates under constrained conditions on its entire run through the region, from Hinkle, OR to Eastport, ID, since most of its rail line operates in a single track with limited opportunities for trains to pass.

Both rail companies also continue to have spur lines which extend from their main lines southeasterly through the communities of Post Falls. The spurs, which have historically provided service to lumber mill sites in Post Falls and Coeur d'Alene, have been reduced or eliminated as areas along the Spokane River have been redeveloped into housing and commercial activities. The future of these and other rail spurs and the potential for new rail freight industry related growth is uncertain at this time. At present, the spurs off the BNSF and UP north of I-90 have the highest likelihood of attracting shippers seeking rail access for their products and materials.

Overall, the companies interviewed for the IPH study tended to rate rail services provided in the region very high and indicated that services had improved in recent years. While rail service rated high, rail rates are typically a common concern to nearly all the interviewed companies. Some companies indicated rail rates were, in some cases, getting worse. Some have suggested a rail company may be de-marketing the area in order to provide additional capacity to their trans-continental rail service.

The U.S. Class I carriers view providing certain types of rail service as simply a business decision. The railroads have and continue to rationalize their networks for efficiency and are attempting to limit the number of stops for certain train types, such as double-stack train container units. The railroads have prioritized their investment dollars out into the future and contend there are simply many more projects of higher priority than providing low density sidings and double-stack intermodal service to a region less than 300 miles from deep water ports. As a result, shipments by truck play a larger role in Kootenai County than rail service, because of proximity, increased flexibility to deliver on schedule, fewer product transfers between modes of transportation, and greater access and reliability to deliver goods.



Source: ITD

PASSENGER RAIL

Amtrak operates passenger trains through Kootenai County; however, the nearest passenger stations with access to Amtrak are in Spokane to the west and Sandpoint to the north.

AIR TRANSPORTATION

The Coeur d'Alene Airport is an important component of the national integrated system of airports. The airport has an important local and regional economic role for the area and, therefore, is a strategic asset that can support companies and individuals investing in the area. In this regard, the airport is expected to play a much larger future role in the strategic movement of goods and people to and from Kootenai County.

Although access to the airport is an important consideration in the planning of the local and regional surface transportation systems, planning for the airport itself is beyond the scope of this MTP. A separate Airport Master Plan is available from Kootenai County.

PUBLIC TRANSPORTATION

In 2012, the *Kootenai Metropolitan Area Regional Public Transportation Plan* was completed, outlining the 20-year needs and policies for a vibrant transit system in the region. Since the completion of this prior study, fixed-route service has been firmly established for the urban area and the rural portions of southern Kootenai County. Kootenai County also completed a Service and Fare Equity Analysis in 2018 to find innovative ways to improve service in a more sustainable manner.

Operating public transportation in Kootenai County is complex due to the lack of an adequate, reliable and sustainable source of funding for capital acquisitions and operations. Kootenai County is the agency that manages funding and contracts operations, as well as provides administration and operational planning for transit in the urbanized area. Funding to support the service is provided by cities of Coeur d'Alene, Post Falls, Hayden, Dalton Gardens, and Huetter, as well as other agencies such as Kootenai Health, Area Agency on Aging, and the Coeur d' Alene Tribe. While this has been a successful partnership to date, continued expansion of the service and schedules beyond current levels will not happen unless additional revenue is made available

The adopted Regional Public Transportation Plan recommends creation of a regional public transportation authority, or similar agency, to merge administration, grants management, operations, operational policies, and funding under one umbrella within the urbanized area. The full plan can be found at www.kmpo.net.

FEDERAL FUNDING PROCESS FOR PUBLIC TRANSPORTATION

- KMPO must approve federal-aid funding priorities for public transportation within the urban area. KMPO does not, however, implement public transit projects or services.

- Kootenai County is the Designated Recipient to receive Federal Transit Administration Section 5307 funds for the urbanized area of the county. This designation carries a number of responsibilities, which may be found on the Federal Transit Administration's website at www.transit.dot.gov. As the designated recipient, the County's role is to manage federal funds to transit providers operating within the urban area and to ensure public input guides the selection of routes and services.

- Federal grants from FTA for other various forms of capital and services in the urbanized areas are allocated to ITD statewide, who then delegates project identification, prioritization and selection to Metropolitan Planning Organizations (MPOs) throughout the State of Idaho. Once projects are selected KMPO notifies ITD for the projects inclusion in the ITD Program of Projects (POP). Selected projects are then funded through a sub-recipient contract with ITD.

- Federal grants for transit service outside the urban area are made to ITD, who then manages those rural public transportation dollars to various transit providers around the state of Idaho.

A number of transit providers operate both inside and outside the urban area, each with a slightly different focus. Each provider is responsible for administering its operations. An overview of the major public transportation service providers in Kootenai County is provided below.

CITYLINK

Kootenai County Public Transportation (Citylink North) bus system, in collaboration with the Coeur d'Alene Tribe and local municipalities, provides regular route service on three (3) routes. The A ("orange") route provides local service in the Coeur d'Alene core area with connections to the communities of Post Falls, Dalton Gardens, and Hayden. The B ("blue") route provides local service with east and west connections from Coeur d'Alene through the community of Huetter and into Post Falls. The C ("green") route provides north and south connections in the Coeur d'Alene area and southern portions of Hayden. The three routes operate Monday through Friday from 6:00 a.m. to 7:00 p.m., and 9:00 a.m. to 4:00 p.m. on Saturdays, with the exception of six holidays. The Riverstone Transit Center serves as a key transfer point for the A, B, and C routes.

Citylink North also provides complementary origin-to-destination Americans with Disabilities Act (ADA) paratransit service within a 3/4-mile area of the regular routes, as well as a supplemental "Ring-a-Ride" service for seniors over the age of 65, as well as people with disabilities who are outside of the paratransit service area.

The paratransit and Ring-a-Ride service use lift-equipped cutaway buses to transport people with mobility limitations that prevent them

Source: NIC

from using Kootenai County Public Transportation regular route bus service. Paratransit and Ring-a-Ride services are available during the same hours as the regular route bus: Monday through Friday, from 6:00 a.m. to 7:00 p.m. Both programs require applications before being eligible to utilize the service to make trip reservations.

The Coeur d’Alene Tribe receives funding directly from the Federal Transit Administration (FTA) and the Idaho Transportation Department (ITD) for Citylink South, which serves the southern portion of Kootenai County and Benewah County. Rural services operate between Worley (Casino), Plummer, DeSmet, and the Riverstone Transit Center. Citylink South operates four (4) routes, 16-hours per day, seven (7) days a week, including holidays. The interconnecting network comprises over 19 stops and averages 9,093 unlinked passenger trips per month.

KOOTENAI HEALTH SHUTTLE

Non-Emergency medical service transportation is delivered through a collaborative partnership between Kootenai County and Kootenai Health. Kootenai Health Transportation services cover Coeur d'Alene, Dalton Gardens, Post Falls, Hayden, and the more remote community of Rathdrum. Kootenai Health’s service offers transportation to the hospital and Kootenai Health-affiliated physician offices in the Coeur d’Alene – Post Falls area. The service is available between 6 a.m. and 4:30 p.m. weekdays. Citylink North provides the vehicles and Intelligent Transportation System (ITS), and Kootenai Health pays for and operates the service. Approximately 2,000 passengers use this service monthly. It costs about $450,000 annually to operate the Kootenai Health shuttle. Private funding from the hospital has covered all costs. This service is free.

OTHER PUBLIC TRANSPORTATION RESOURCES

There are multiple senior care-related transportation providers operating throughout the urban area. There are also several organizations providing shuttle services from neighboring counties into the Coeur d’Alene area, including White Tail Transportation and Silver Express.

Additional transportation services are also available in Kootenai County. Along with traditional taxis, ride hailing companies, such as Uber and Lyft, have become popular within the region, providing customized transportation service for residents within the urban area, out to small communities, and between the Coeur d’Alene and Spokane urban areas. Additionally, FlixBus—a European web-based bus service, which recently arrived in the US— currently offers low-cost bus service between Spokane and Coeur d’Alene on weekends.

The aforementioned 2012 Regional Public Transportation lists more information on the history of the formation of public transportation and other public transportation services within KMPO’s planning area.

The Kootenai County Coordinated Public Transit Human Services Transportation Plan can be found on Kootenai County’s transit webpage at https://www.kcgov.us/496/Transit-Documents.

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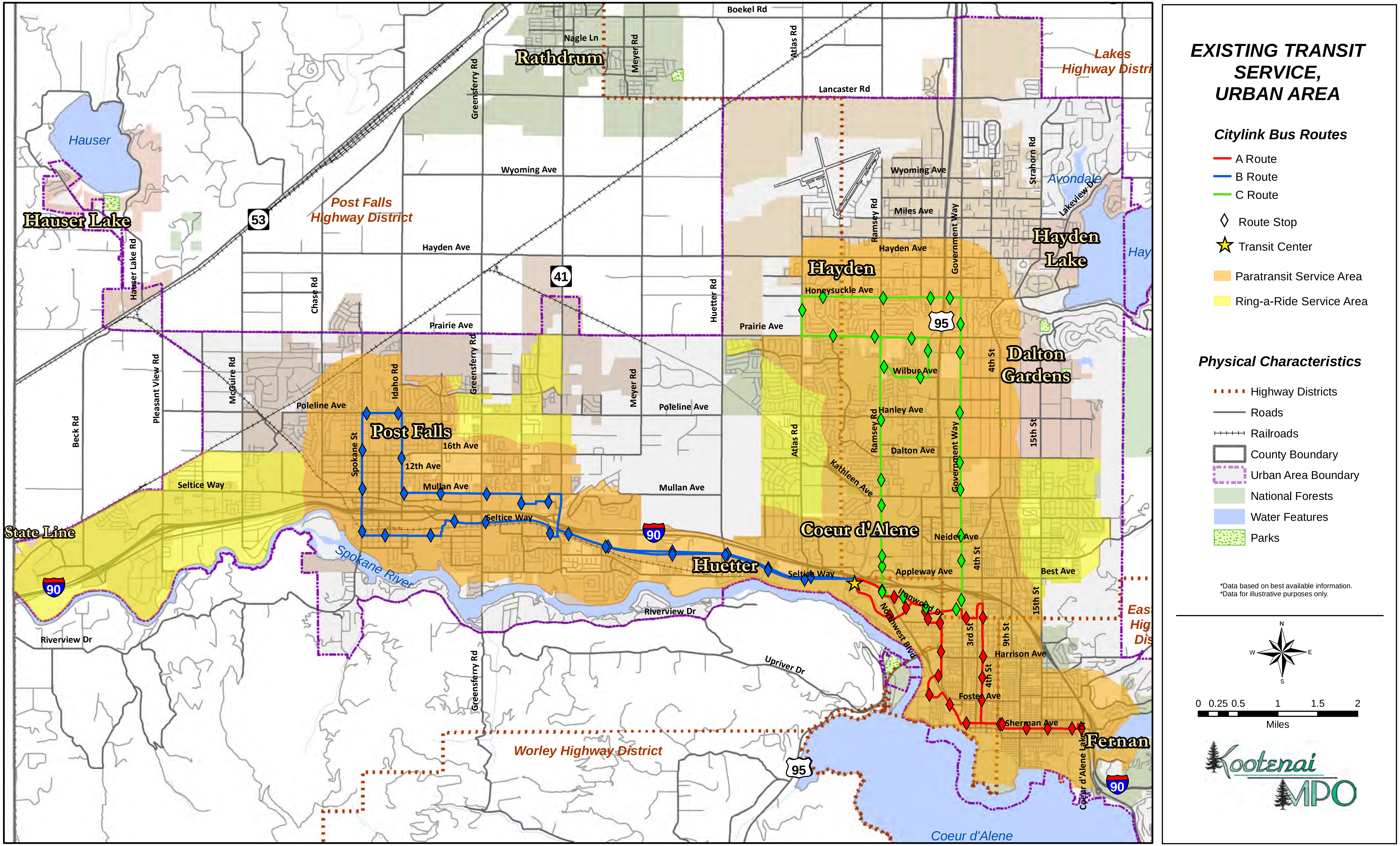


NON-MOTORIZED TRANSPORTATION

In 2009, KMPO developed a Regional Non-Motorized Transportation Plan (RNMTP) in response to the need for coordination between jurisdictions in their respective pedestrian and bicycle improvement efforts. The Plan was most recently updated and adopted by the KMPO Board in 2018. Prior to the creation of the RNMTP, non-motorized planning in Kootenai County had been performed independently by local jurisdictions. It is notable that even prior to a regional non-motorized plan, an extensive network of regional trails has been developed in Kootenai County over the years. There are four notable regional pathways in the County that deserve specific mention:

- *Centennial Trail*. The Centennial trail is a non-motorized trail stretching from the Washington State Line to Higgins Point on Lake Coeur d'Alene. This trail is a popular recreational facility and also connects residential, employment and medical centers in Coeur d'Alene, Huetter and Post Falls; offering a safe and efficient way to commute by foot or bicycle.
- *US 95 Pathway*. A non-motorized trail provides bicycle and pedestrian accommodation along US 95 between I-90 and SH-53. This facility offers a safe corridor for non-motorized travel adjacent to the highest volume north-south route in the county. The US 95 Pathway allows efficient access for pedestrians and cyclists between residential and employment centers in Coeur d'Alene and Hayden. This facility was completely reconstructed and extended from SH-53 to Athol in 2019.
- *Trail of the Coeur d' Alene's*. An abandoned rail corridor that spans northern Benewah County, southern Kootenai County and Western Shoshone County has been converted into about 72 miles of pathway under the federal Rails to Trails program. The Trail of the Coeur d' Alene's connects the communities of Plummer in Benewah County and Harrison in Kootenai County with the towns of Cataldo, Kellogg and others in the Silver Valley. This pathway is a popular recreational attraction for all three counties.
- *Prairie Trail.* The trail is an urban non-motorized path stretching along the vacated UP spur line through the west side of Coeur d'Alene. This 3.5-mile trail extends from the Centennial Trail, south of I-90 to Huetter Road. This path is used for both recreation and commuting purposes. The cities of Post Falls and Coeur d'Alene and the Centennial Trail Foundation would like to extend the trail from Huetter Road past SH-41 in the future, as the rest of the UP spur line is vacated. This would complete a separated non-motorized route from the City of Post Falls to downtown Coeur d'Alene, creating an important non-motorized connection across the Rathdrum Prairie.

REGIONAL NON-MOTORIZED TRANSPORTATION PLAN

Even with the region's expanding trail assets, a lack of coordination has resulted in a regional bicycle and pedestrian network that needs improvements in connectivity. The RNMTP is designed to synthesize a regional vision for non-motorized transportation. The plan identifies challenges, opportunities, priorities, and recommendations to help facilitate further development toward a more walkable and bike able region.

EXISTING CONDITIONS

The development of a regional vision requires an extensive effort to document existing trail and non-motorized facilities and use, in order to provide a current picture of the local system and identify any gaps. Figures 3.21a-b and 3.22a-b illustrate existing and proposed non-motorized facilities in Kootenai County.

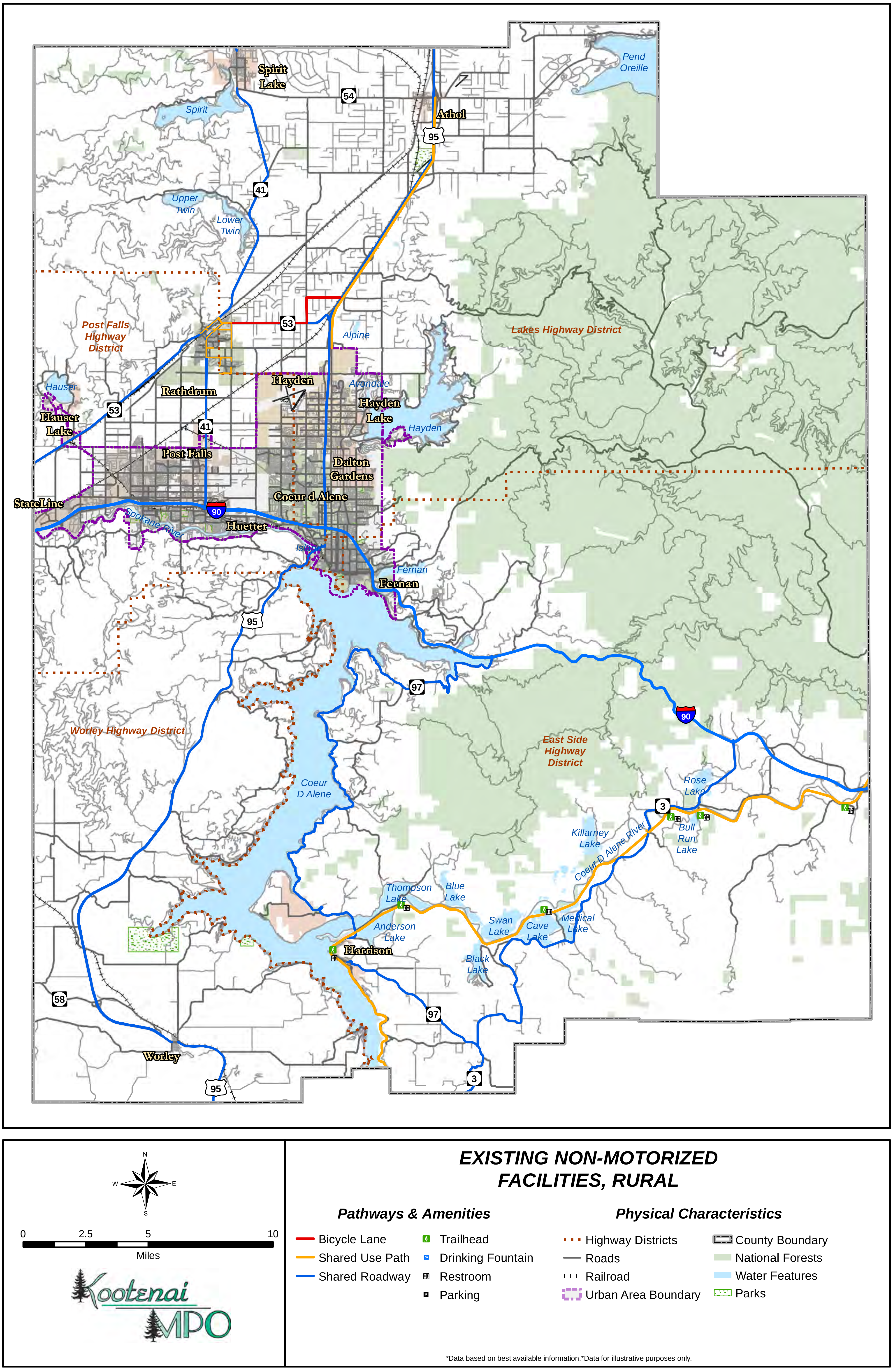
VISION AND GOALS

The vision statement developed for the RNMTP is:

To plan for, enhance, educate and encourage non-motorized travel through a mapped, maintained, safe, accessible, connected and designed network that considers destinations and community resources.

More specifically, the regional vision identified through the RNMTP includes the following goals:

- ***Education & Awareness**.* Better education all users, motorized and non-motorized, of safe use, probably hazards, and local laws of a multi-modal system; promote non-motorized modes as legitimate modes of transportation in Kootenai County and the region as a destination for active recreation opportunities.
- ***Connectivity & Accessibility*.** Complete a network of pathways and bikeways that serve the needs of all non-motorized users.
- ***Safety & Maintenance*.** Maximize safety for all non-motorized users on a network of well-maintained facilities throughout the region.
- ***Policy, Planning & Design*.** Integrate the needs of non-motorized users with policy, planning, and program development for land use, economic development, and recreation or community capital facilities. Engage and promote a community-oriented design that supports non-motorized transportation options and encourages non-motorized travel and transit, provides convenient end-of-trip facilities, and supports a network less reliable on automobiles. Ensure that all transportation modes are considered.



EXISTING NON-MOTORIZED FACILITIES, RURAL

Pathways & Amenities

- Bicycle Lane
- Shared Use Path
- Shared Roadway
- Trailhead
- Drinking Fountain
- Restroom
- Parking

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- Urban Area Boundary
- County Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.21a

Figure 3.21b

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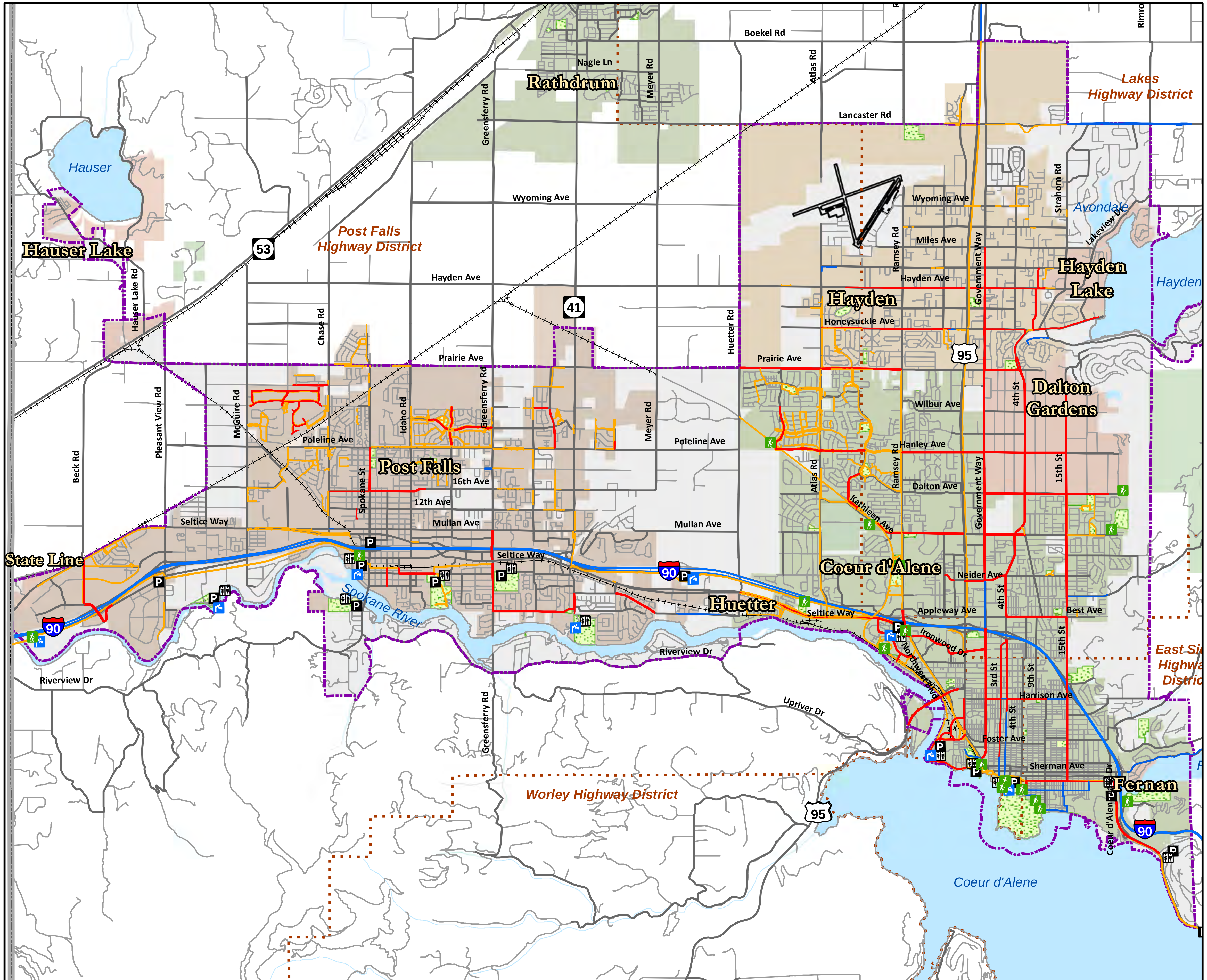
EXISTING NON-MOTORIZED FACILITIES, URBAN AREA



Pathways & Amenities

- Trailhead
- Drinking Fountain
- Restroom
- Parking
- Shared Use Path
- Bike Lane
- Shared Roadway

Physical Characteristics

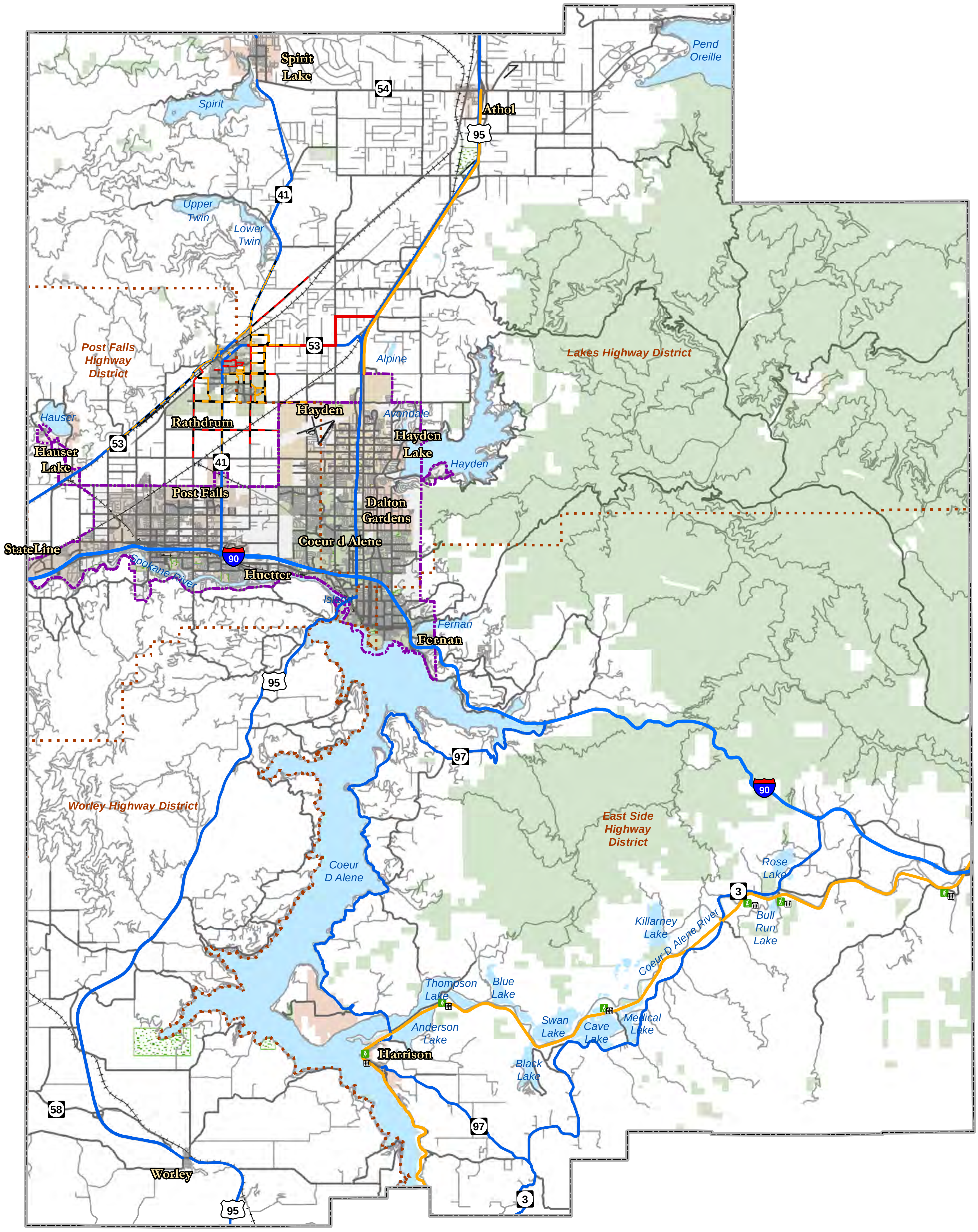
- County Boundary
- Urban Area Boundary
- Roads
- Railroads
- Highway Districts
- Parks
- National Forests
- Water Features

N W E S

0 0.5 1 2 Miles

Kootenai MPO

*Data based on best available information. *Data for illustrative purposes only.



FUTURE NON-MOTORIZED FACILITIES, RURAL

N
W E
S

0 2.5 5 10
Miles

Kootenai MPO

Pathways & Amenities

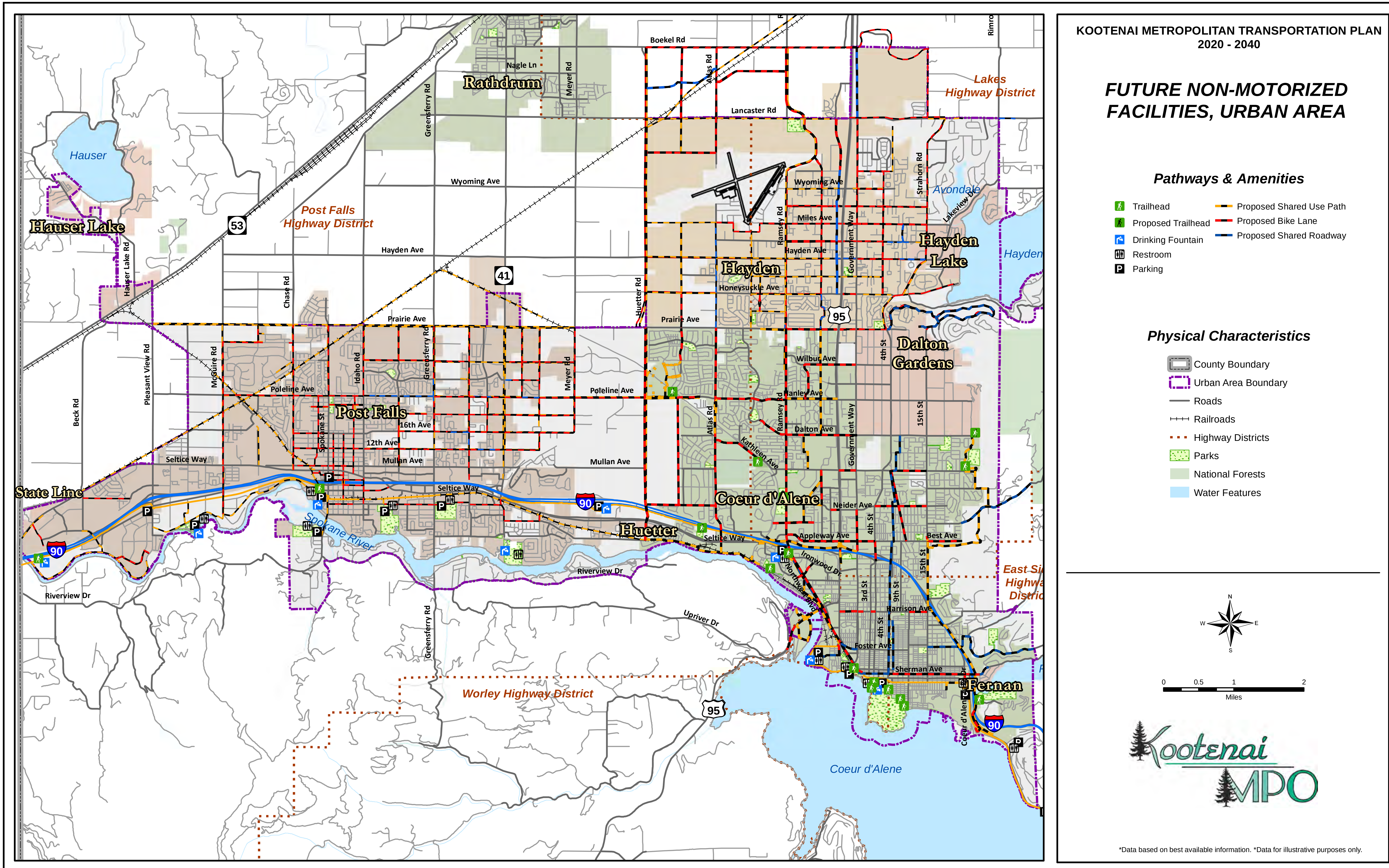
- Bicycle Lane
- Shared Use Path
- Shared Roadway
- Trailhead
- Drinking Fountain
- Restroom
- Parking

Physical Characteristics

- Highway Districts
- Roads
- Railroad
- Urban Area Boundary
- County Boundary
- National Forests
- Water Features
- Parks

*Data based on best available information.*Data for illustrative purposes only.

Figure 3.22a


KOOTENAI METROPOLITAN TRANSPORTATION PLAN
2020 - 2040
FUTURE NON-MOTORIZED FACILITIES, URBAN AREA
Pathways & Amenities
Trailhead
Proposed Trailhead
Drinking Fountain
Restroom
Parking
Proposed Shared Use Path
Proposed Bike Lane
Proposed Shared Roadway
Physical Characteristics
County Boundary
Urban Area Boundary
Roads
Railroads
Highway Districts
Parks
National Forests
Water Features
N
W
E
S
0
0.5
1
2
Miles
Kootenai MPO
*Data based on best available information. *Data for illustrative purposes only.
Rathdrum
Hauser Lake
Hauser
Post Falls Highway District
Lakes Highway District
Post Falls
State Line
Hayden
Hayden Lake
Avondale
Dalton Gardens
Coeur d'Alene
Huetter
Fernan
Worley Highway District
East Side Highway District
Spokane River
Coeur d'Alene
Boekel Rd
Nagle Ln
Lancaster Rd
Wyoming Ave
Hayden Ave
Prairie Ave
Poleline Ave
Mullan Ave
Seltice Way
16th Ave
12th Ave
Riverview Dr
Upriver Dr
Honeysuckle Ave
Miles Ave
Wilbur Ave
Hanley Ave
Dalton Ave
Kathleen Ave
Neider Ave
Appleway Ave
Best Ave
Ironwood Dr
Northwest Blvd
Harrison Ave
Foster Ave
Sherman Ave
Greensferry Rd
Meyer Rd
Atlas Rd
Ramsey Rd
Government Way
Strahorn Rd
Lakeview Dr
4th St
15th St
3rd St
9th St
Huetter Rd
Chase Rd
Idaho Rd
McGuire Rd
Pleasant View Rd
Beck Rd
Hauser Lake Rd
Spokane St
Coeur d'Alene Lake Dr
53
41
95
90

FUTURE NEEDS

Through an online survey and map available through March 2018, the public was able to provide feedback on their current use and identify improvements or expansions to the network they would like to see. KMPO staff compiled all the data collected through the public outreach process and created a list of desired improvements. This list was then compared with the planned projects of the local jurisdictions to create the Priority Project list (Table 3.16). Individual jurisdictions will be responsible for submitting these projects to the Transportation Improvement Plan (TIP) and for the specific alignment, engineering, design, and construction, should these projects be selected.

TRANSIT INTERFACE

Like non-motorized transportation modes, transit serves those who choose or are not able to not drive or do not have access to a private vehicle. Transit provides an opportunity for non-motorized users to extend the range of where they can travel. In many instances, transit users utilize non-motorized methods to reach bus stops. It is important to consider transit in the development of non-motorized projects to fill gaps between the non-motorized network and transit.

One project that will move Kootenai County closer to the goal of intermodal connectivity is the recent construction of the Riverstone transit center, which was completed in September 2019. The transit center will serve as a park and ride for transit users and a starting point for pedestrians and bicyclists using area trails.

Source: KMPO

RECOMMENDATIONS

Participants of the development of the RNMTP developed a series of recommendations to guide non-motorized transportation planning among individual jurisdictions. Among these recommendations include the need to improve data collection, promote regional coordination, foster community engagement and participation, develop regional mapping and wayfinding, and prioritize regional connections.

- *Data Collection.* Collect additional and new data to better understand non-motorized transportation in Kootenai County and monitor facilities and trends.
    - Collect non-motorized count data on a two-year basis to determine use on facilities throughout the region.
    - Collect and analyze crash data annually to monitor regional safety and identify problem locations.

  - Work with local agencies to create and expand a GIS database of facilities.
  - Work with local agencies to collect data on facility conditions and level of service to assist with project prioritization and needed improvements or expansion.
- *Regional Coordination.* Foster an increase in coordination and collaboration between agencies in regards to non-motorized transportation. Pursue the establishment of a regional entity to oversee and maintain the regional non-motorized trail network.
- *Public Input & Engagement.* Foster public engagement to receive a greater degree of public input. Strategies include hosting a semi-annual roundtable between KCATT and local organizations/groups, encourage agencies to form non-motorized committees, share information with local non-motorized committees, and foster collaboration between agencies and local organizations/groups.
- *Mapping & Wayfinding.* Collaborate to develop regional mapping of non-motorized facilities and projects and other network information to provide regional wayfinding and user education.
- *Regional Connections.* Foster collaboration on non-motorized projects spanning multiple jurisdictions and work with groups to develop plans for regional facilities.

The Regional Non-Motorized Transportation Plan can be viewed in its entirety at www.kmpo.net.


Source: Enjoy CDA

Table 3.15 Non-Motorized Transportation Priority Network

Project Location	Description	User Type			Existing Facility	Project Type		Project Purpose					# of Crashes	Community Support	Agency
		Bicyclist	Pedestrian	Transit Access		Upgrade	New	Safety	Connectivity	Maintenance	Recreation	Economic Benefit		# of responses	
Shadduck Ln to Coeur d'Alene Lake Dr	Add Shared Use Path	●	●		◒	●	●	●	●		●		1	1	Coeur d'Alene
Huetter Rd to Bellerive Ln	Add Shared Use Path	●	●				●		●		●	●	0	2	Coeur d'Alene
Northwest Blvd - Appleway Ave to Sherman Ave	Add bike lanes on both sides and close gaps in shared use path and sidewalks	●	●	●	◒	●	●		●				9	2	Coeur d'Alene
Sherman Ave - 1st St to 23rd St	Add bike lanes and sharrows where appropriate	●		●			●	●	●			●	13	4	Coeur d'Alene
Boekel Rd - Ohio St to Meyer Rd	Add sidewalks or shared use path		●				●	●					0	1	Rathdrum
Meyer Rd - Boekel Rd to Commercial Park Ave	Add sidewalks or shared use path		●				●	●					0	1	Rathdrum
Lancaster Rd -SH 41 to Meyer Rd	Add shared use path	●	●				●	●	●				0	1	Rathdrum
Dalton Ave - Ramsey Rd to 4th St	Add bike lanes	●	●	●			●	●	●				1	1	Coeur d'Alene
Government Way - Buckles Ave to Lancaster Rd	Add bike lanes	●		●			●	●					0	1	Hayden
Centennial Trail - Greensferry Rd to Ross Point Rd	Add shared use path	●	●	●			●	●	●			●	0	3	Post Falls
Connection from Centennial Trail to Riverstone Dr	Add shared use path	●	●	●			●	●	●		●		0	1	Coeur d'Alene
Wyoming Ave - US95 to Ramsey Rd	Add bike lanes on both sides	●					●	●					1	1	Hayden
Ramsey Rd - Wyoming Ave to Prairie Ave	Add bike lanes and/or shared use path	●		●			●						1	2	Hayden
Appleway/Best Ave - Fairway Dr to 15th St	Add bike lanes	●					●	●	●				24	1	Coeur d'Alene
Lakewood Dr - Ironwood Dr to Centennial Trail	Add bike lanes	●		●			●	●	●				2	1	Coeur d'Alene
Kathleen Ave - US 95 to Government Way	Add bike lanes	●					●	●	●				1	1	Coeur d'Alene
SH 53 - SH 41 to Old Highway 95	Add shared use path	●	●				●	●	●				3	2	ITD LHD Rathdrum
Mullan Ave - SH 41 to Spokane St	Add bike lanes	●		●			●	●	●				5	1	Post Falls
Huetter Rd - Maplewood Ave to SH 53	Add shared use path and widen/stripe shoulder	●	●				●	●	●				0	6	PFHD LHD Hayden
Prairie Ave - SH41 to Government Way	Close gaps in bike lanes and/or shared use path and sidewalks	●	●	●	●	●	●	●	●				8	4	Hayden PFHD Coeur d'Alene

Table 3.15 Non-Motorized Transportation Priority Network - Continued

Lancaster Rd - Meyer Rd to Government Way	Widen and stripe shoulder	●	●		◒	●			●				0	3	Hayden Rathdrum
US 95 - Appleway Ave to SH 53	Reconstruct shared use path	●	●		●	●		●	●	●			0	1	ITD
Government Way - Hanley to Hayden	Add bike lanes, sharrows and sidewalks where appropriate	●	●				●	●	●				5	2	Hayden Coeur d'Alene
4th St - Hattie Ave to Appleway Ave	Add bike lanes	●						●					4	1	Coeur d'Alene
Hayden Ave - Strahorn Rd to Maple St	Add bike lanes or widen shoulders and add sidewalks	●	●				●	●					0	1	Hayden
Pleasant View Rd - Riverbend Ave to 5th Ave	Add bike lanes or shared use path; crossing improvements	●	●				●	●					0	1	Post Falls
Maple St - Hayden Ave to Dakota Ave	Add shared use path, sidewalks, or widened shoulder	●	●				●	●					1	1	Hayden
SH 41 - Mullan Ave to Coeur d'Alene St	Add shared use path	●	●				●	●	●			●	2	2	ITD Post Falls Rathdrum
15th St - Sherman Ave to Dalton Ave	Close gaps in shared use path and bike lanes	●	●		●	●	●	●	●	●			7	9	Coeur d'Alene
Young Ave to Ashton Rd	Add shared use path	●	●				●	●	●		●		0	1	Coeur d'Alene
Government Way - Neider Ave to Ironwood Dr	Add bike lanes	●		●			●	●	●				18	1	Coeur d'Alene
Ross Point Rd - Ponderosa Blvd to Seltice Way	Add bike lanes	●					●	●		●			0	2	Post Falls
Hayden Ave - Atlas Ave to Huetter Rd	Add bike lanes on both sides	●			●	●			●				0	1	Hayden
Mullan Ave - Huetter Rd to Inverness Dr	Add bike lanes	●					●		●				0	1	Post Falls
Connection from Huetter Rd to Ross Point Rd	Add shared use path	●	●	●			●	●					2	3	Post Falls
Strahorn Rd - Dodd Rd to Hayden Ave	Add shared use path or bike lanes and/or widen shoulders	●	●		?	?	●	●	●				0	1	Hayden
SH 53 - SH 41 to McGuire Rd	Add shared use path	●	●				●	●	●		●		0	1	Rathdrum
Seltice Way at I90 Interchange	Add bike lanes or shared use path	●	●				●	●	●				1	1	Post Falls
Maplewood Ave - Huetter Rd to Riverside Harbor Dr	Widen shoulders and/or add bicycle lane	●	●		?	?		●					0	1	Post Falls PFHD
SH 41/Ross Point Rd @ Seltice Way	Improve crossing/reconfigure intersection	●	●		●	●		●					0	3	Post Falls ITD

PERFORMANCE MANAGEMENT

KMPO has taken an active role in monitoring the performance of the Kootenai County's existing transportation system through a variety of methods, as have been previously described in this Section. In addition to previous efforts, with the 2012 transportation law, Moving Ahead for Progress in the 21st Century (MAP-21), the federal government established requirements for MPOs and state departments of transportation (DOTs) to comply with FHWA's Transportation Performance Management (TPM) program. The TPM program is an initiative that seeks to provide DOTs and MPOs with a framework for using data to assist in the strategic investment of transportation dollars. The program further expanded in the Fixing America's Surface Transportation (FAST) Act, enacted in 2017, and includes requirements for DOTs and MPOs to utilize TPM in their transportation planning processes.

The intent of TPM is to establish a process to measure progress in achieving several national performance goals, which include:

- **Safety** – Achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- **Infrastructure Condition** – Maintain the highway infrastructure asset system in a state of good repair.
- **Congestion Reduction** – Achieve a significant reduction in congestion on the National Highway System.
- **System Reliability** – Improve the efficiency of the surface transportation system.
- **Freight Movement and Economic Vitality** – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental Sustainability** – To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- **Reduce Project Delivery Delays** – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burden and improving agencies' work practices.

In addition, Performance Measures have been established for six of the seven goals. As part of the TPM program, DOTs and MPOs are required to set quantifiable targets for each measure and track progress towards achieving those targets. The performance measures and targets must be documented within the organizations' Long-Range State Transportation Plan or Metropolitan Transportation Plan. DOTs and MPOs must also include a discussion in their Transportation Improvement Programs on how programmed investments will effectively work towards achieving adopted targets.

MPOs have two options for utilizing the TPM process. MPOs are given the option of 1) developing their own performance targets and collecting, analyzing, and reporting data or 2) adopting the state's targets and documenting how the MPO supports the state in achieving those targets.

The KMPO Board has chosen to adopt the Idaho Transportation Department's targets and work collaboratively with ITD and regional agencies to achieve those. Information on ITD's baseline conditions, targets and progress can be found on FHWA's Performance Dashboard at https://www.fhwa.dot.gov/tpm/reporting/state/.

PERFORMANCE MEASURE: SAFETY

Five measures have been established to monitor progress towards reducing fatal and serious injury accidents on all public roads. In February 2018, the KMPO Board chose to adopt and support ITD's safety targets, rather than develop separate targets for Kootenai County. ITD has recently set its 2020 targets for the measures.

ITD's targets are included in the following table, along with Kootenai County's data for each measure for 2013-2017 (most current data). Kootenai County's fatal and serious crash rates remain below ITD's safety targets.

The County's fatality rate per 100 million vehicle miles traveled (VMT) increased slightly compared with the previous five years. The rate of serious injury crashes decreased. Figures 3.23 through 3.27 illustrate Kootenai County's annual and five- year average performance for each measure.

Table 3.16 ITD Safety Targets and Kootenai County Existing Conditions, 2019

	2020 ITD Targets	Kootenai County 2014-2018
5-Year Avg. Number of Fatalities	249	63
5-Year Avg. Fatality Rate per 100 million VMT	1.41	0.86
5-Year Avg. Number of Serious Injuries	1287	387
5-Year Serious Injury Rate per 100 million VMT	7.3	5.3
5-Year Avg. Number of Non-motorized Fatalities & Serious Injuries	120	51

Figure 3.23 Five-Year Avg. Number of Fatalities

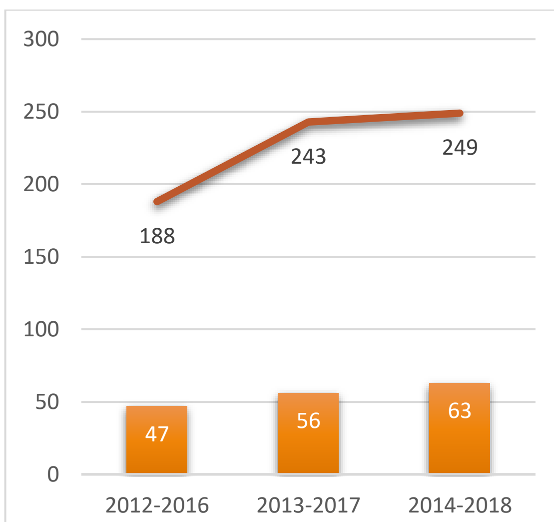


Figure 3.24 Five-Year Fatality Rate (per 100 million VMT)

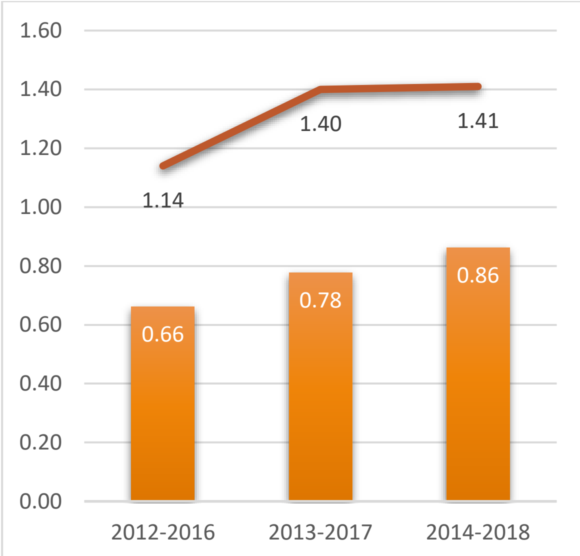


Figure 3.25 Five-Year Avg. Number of Serious Injuries

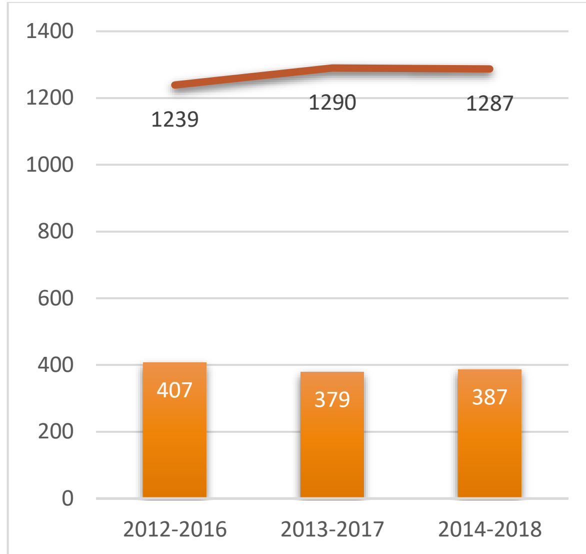


Figure 3.26 Five-Year Serious Injury Rate (per 100 million VMT)

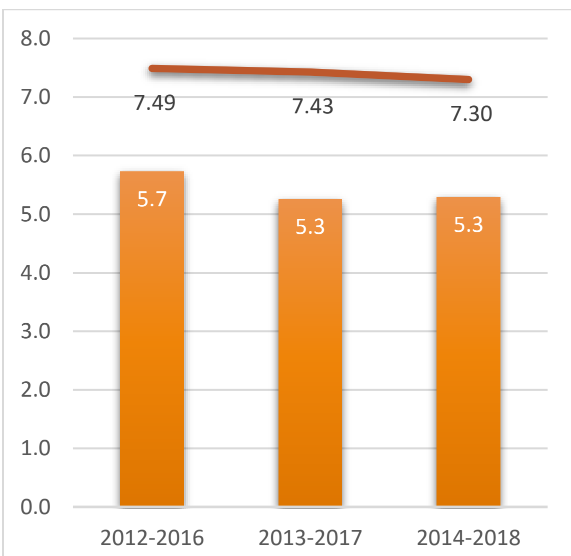
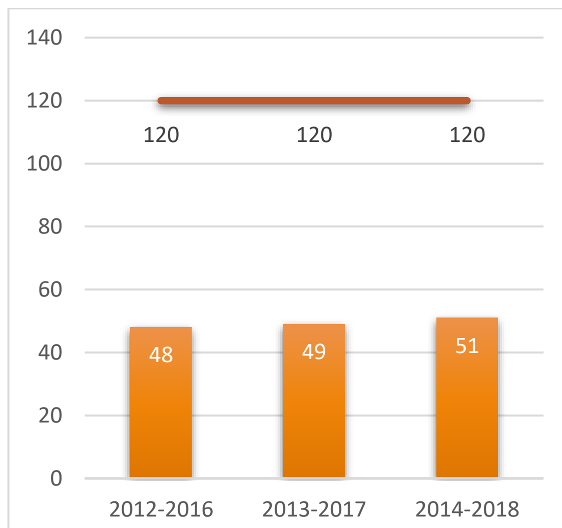


Figure 3.27 Five-Year Average of Non-Motorized Fatalities and Serious Injuries



PERFORMANCE MEASURES: INFRASTRUCTURE CONDITION

Infrastructure condition is split into two categories: pavement condition and bridge condition. Unlike Safety, Infrastructure Condition performance is only measured on National Highway System (NHS) roadway segments. Each set of measures is detailed below.

The KMPO Board passed a motion to adopt ITD's 2019 performance targets for Infrastructure Condition at the Board's August 8, 2019 meeting.

PAVEMENT CONDITION

Pavement condition is rated based on three factors: IRI (International Roughness Index), Cracking (%), and Rutting or Faulting. For 2018, only IRI data was required to be reported to FHWA. However, ITD chose a more conservative target for 2019 to account for the additional measures that will be included going forward. The data below reflects all three criteria.

Pavement condition receives a 'Good' rating if it receives a 'Good' rating for all three conditions. A 'Poor' rating is received when pavement receives a 'Poor' rating in two or more of the factors. 'Fair' ratings encompass the remaining combinations. Categories are rated by the following criteria:

Rating	IRI	Cracking	Either	
			Rutting (asphalt)	Faulting (jointed concrete)
GOOD	< 95	< 5%	< 0.20 in.	< 0.10 in.
FAIR	95-170	5 - 20% asphalt; **OR** 5 – 15% jointed concrete; **OR** 5 – 10% CRCP	0.20 – 0.40 in.	0.10 – 0.15 in.
POOR	>170	> 20% asphalt; **OR** > 15% jointed concrete; **OR** > 10% CRCP	> 0.40 in.	> 0.15 in.

The table below shows ITD's Pavement Condition targets and data from Kootenai County pavement sections. Kootenai County's pavement conditions meet all four of ITD's targets. Pavement Conditions in Kootenai County have improved over the past several years due to a series of chip seal, overlay, and reconstruction projects.

Table 3.17 ITD Pavement Condition Targets and Kootenai County Existing Conditions, 2019

	2019 ITD Targets	Kootenai County 2018
Interstate NHS Percent Good	50%	57%
Interstate NHS Percent Poor	4%	0%
Non-Interstate NHS Percent Good	50%	65.1%
Non-Interstate NHS Percent Poor	8%	0.1%

Figures 3.28 through 3.31 illustrate Kootenai County's annual performance for each measure.

Figure 3.28 Interstate Pavement Condition - Good

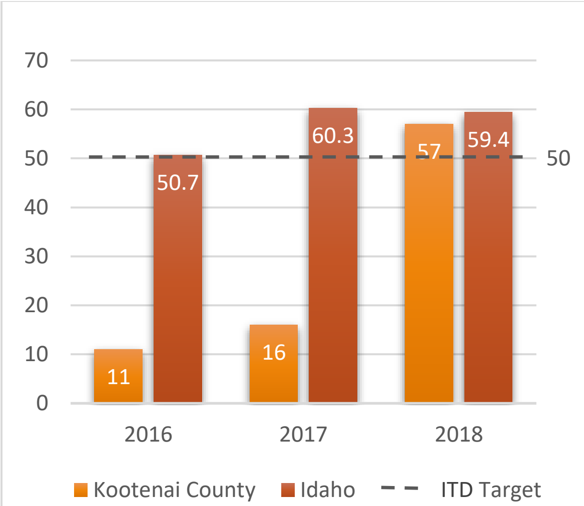


Figure 3.29 Interstate Pavement Condition - Poor

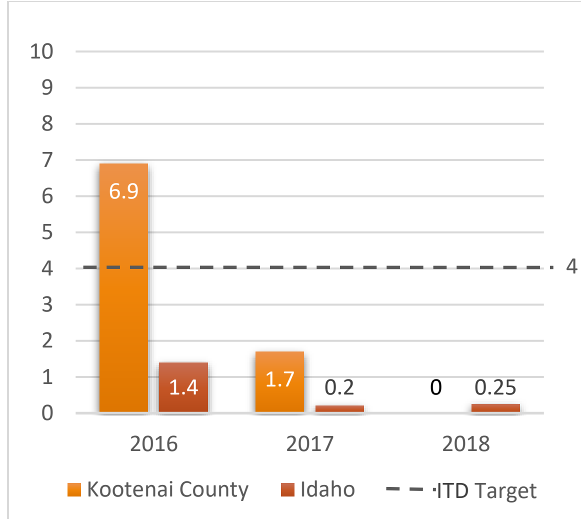


Figure 3.30 Non-Interstate Pavement Condition - Good

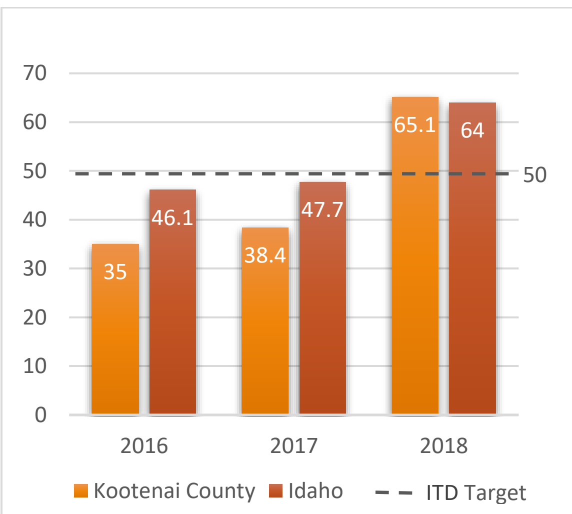
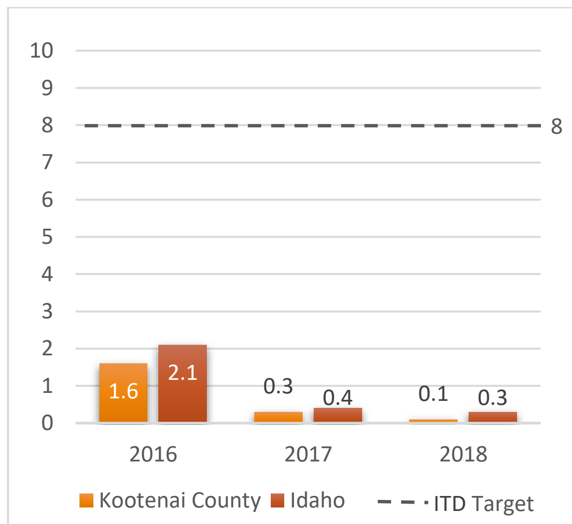


Figure 3.31 Non- Interstate Pavement Condition - Poor



BRIDGE CONDITION

Bridge condition is classified as either ‘Good’, ‘Fair’ or ‘Bad, and are assessed for the NBI (National Bridge Inventory) items of Deck, Superstructure, and Substructure. Culverts are also assessed. A bridge (or culvert) receives a ‘Good’ rating when it receives a 7 or higher for the NBI items. A bridge receives a ‘Fair’ rating when it receives a score of 5 or 6, and a ‘Poor’ rating is received when a bridge or culvert scores a 4 or below. A bridge that scores a 4 or less in these items is considered ‘Structurally Deficient’.

The table below shows ITD’s Bridge Condition targets and data from Kootenai County bridges. Kootenai County NHS bridges reported as ‘Good’ falls well below ITD’s target of 19%. However, 96.1% of bridges in Kootenai County are rated as in ‘Fair’ condition, and the number of bridges in ‘Poor’ condition are within ITD’s target of 3%.

Table 3.18 ITD Bridge Condition Targets and Kootenai County Existing Conditions, 2019

	2019 ITD Targets	Kootenai County 2018
NHS Bridge Percent Good	19%	2.75%
NHS Bridge Percent Poor	3%	1.12%

Figures 3.32 through 3.33 illustrate Kootenai County’s annual performance for each measure.

Figure 3.32 Bridge Condition - Good

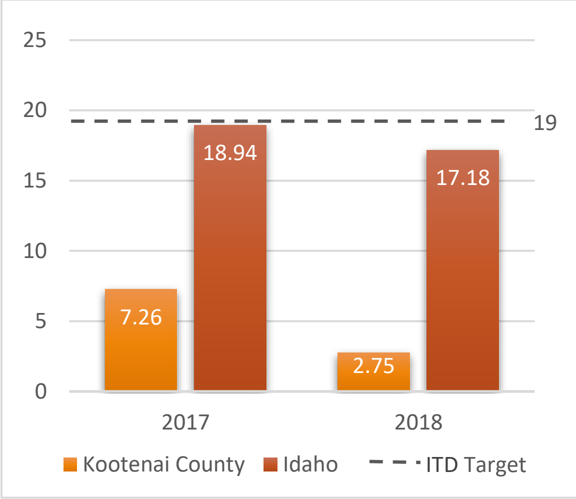
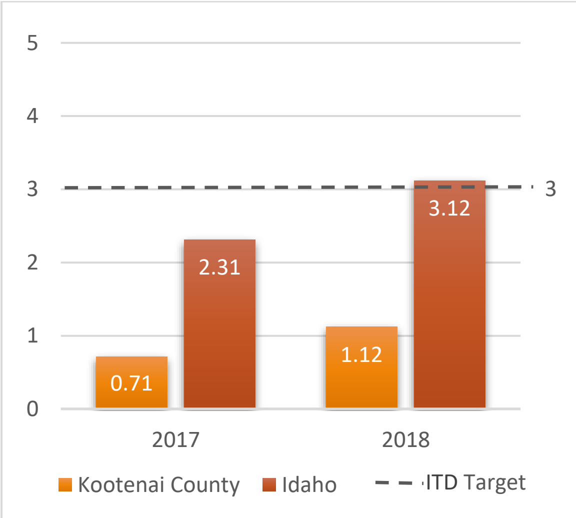


Figure 3.33 Bridge Condition - Poor



PERFORMANCE MEASURE: SYSTEM RELIABILITY

Two measures have been established for monitoring progress under System Reliability. Performance is measured by the reliability person miles on the NHS, both on the interstate and non-interstate roadways.

ITD used the NPMRDS (National Performance Management Research) Data Set available through FHWA to calculate travel time reliability for the state. The NPMRDS consists of GPS, cellphone, and other probe speed data collected from 2014 to present on the NHS.

Travel Time Reliability is defined by Federal highways as "the consistency or dependability of travel times from day to day or across different times of the day." The Level of Travel Time Reliability (LOTTR) is a comparison of the 80th percentile travel time to the "normal" (50th percentile) travel time. This is done for each segment of the roadway for each time period of the day (morning peak, evening peak, midday and overnight). If any time period has a ration over 1.5, the segment is considered "Not Reliable". "Reliable" and "Not Reliable" segments are then calculated by the total annual volumes, segment length and occupancy rate to get the "Percent of Person-miles Traveled."

The table below shows ITD's reliability targets and data from Kootenai County current travel-time reliability. Due to concerns of data reliability, ITD has set more conservative targets for travel time reliability to "assure success early on." Kootenai County's current travel time reliability meets ITD's targets.

Table 3.19 ITD System Reliability Targets and Kootenai County Existing Conditions, 2019

	2019 ITD Targets	Kootenai County 2018
Percent of the Person-Miles Traveled that are Reliable - Interstate	90.0%	100.0%
Percent of the Person-Miles Traveled that are Reliable - Non-Interstate	70.0%	96.8%

Figures 3.34 through 3.35 illustrate Kootenai County's annual performance for each measure.

Figure 3.34 Level of Travel Time Reliability, Interstate

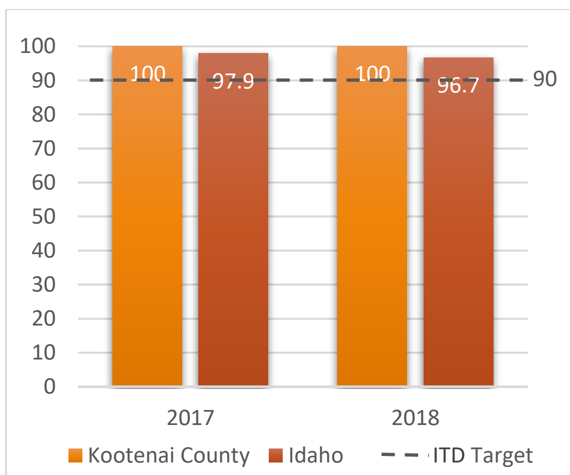
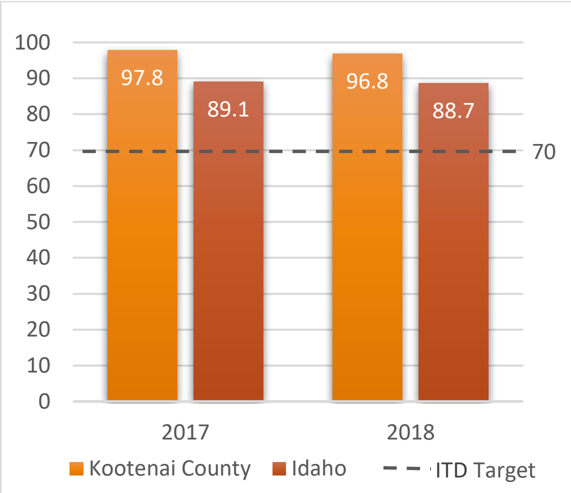


Figure 3.35 Level of Travel Time Reliability, Non-Interstate



PERFORMANCE MEASURE: FREIGHT RELIABILITY

Truck Travel Time Reliability (TTTR) Index is the measure used to gauge freight reliability. TTTR represents the 95th percentile of truck travel time compared to the "normal" (50th percentile) of travel time for each of the four daily time periods. An average is calculated of all the segments worst TTTR ratios, resulting in the TTTR Index. This measure is vital for

freight industry to predict reliability and ensure deliveries are made on time.

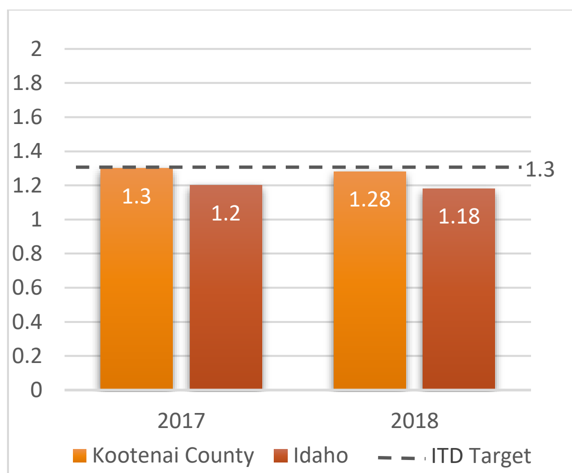
Similar to the measures above, ITD, used NPMRDS dataset, as well, to calculate the TTTR Index. The table below shows ITD's freight reliability targets and Kootenai County's current TTTR Index. Kootenai County's TTTR currently meets ITD's target.

Table 3.20 ITD System Reliability Targets and Kootenai County Existing Conditions, 2019

	2019 ITD Targets	Kootenai County 2018
Interstate Truck Time Reliability	1.30	1.28

Figure 3.36 illustrates Kootenai County's annual performance for each measure.

Figure 3.36 Truck Travel Time Reliability Index, Interstate



TRANSIT PERFORMANCE MANAGEMENT

In addition to performance management requirements outlined for roadways under FHWA, MAP-21 and the FAST Act also included regulations for monitoring transit performance. The Federal Transit Administration (FTA) oversees the development of the Transit Asset Management (TAM) and Public Transportation Safety programs by public transportation agencies. As with the TPM requirements, transit agencies are required to develop TAM and Safety plans and establish performance targets for safety and state of good repair (SGR). They must also monitor and report their progress in achieving their targets. Transit agencies must also coordinate with local MPOs and the DOTs and share information regarding transit performance.

Citylink is the primary transit provider in Kootenai County. Citylink North provides urban fixed-route and paratransit services and is managed by Kootenai County. The County is the designated recipient of FTA 5307 funds and a subrecipient of 5310 and 5339 funding through ITD and KMPO.

TRANSIT ASSET MANAGEMENT

Any agency that owns, operates or manages capital assets used to provide public transportation, must develop a Transit Asset Management (TAM) Plan. Transit Asset Management (TAM) seeks to address the growing backlog of transit assets in poor condition, which ultimately impact safety and the ability for agencies to serve their customers. Under the TAM requirements, transit agencies are required to collect data and monitor performance measures for rolling stock and equipment, infrastructure, and facilities.

The TAM Plan must include the following elements:

- An inventory of the agency's capital assets
- Condition assessment of inventoried assets
- Description of the decision support tool used to prioritize investments
- A list of prioritized investments

Currently, Citylink North's only assets include Revenue Vehicles, which they use for their urban fixed-route, paratransit, and Ring-a-Ride services. However, the construction of the Citylink Transfer Station was completed in September 2019, and will be included in the agencies future TAM Plan. The table below includes Citylink's 2019-2021 targets for Revenue Vehicles.

Table 3.21 Transit Asset Management Performance Measures

Performance Measure	Revenue Vehicles	
	Age - % of revenue vehicles within a particular asset class that have met or exceeded their Useful Life	
Asset Class	**BU - Bus**	**CU – Cutaway Bus**
2019 Target	50%	50%
2020 Target	40%	20%
2021 Target	20%	-

PUBLIC TRANSPORTATION SAFETY

FTA requires transit agencies to have an approved Public Transportation Agency Safety Plan (PTASP) by July 2020. The purpose of the PTASP is to assist transit agencies to manage safety risks by developing and implementing a proactive system to address potential hazards and create a culture of safety within each agency. PTASP's, once approved, much be updated and certified by FTA annually. The PTASP must include the following elements:

- Safety Risk Identification and Evaluation
- Established Performance Targets
- Safety management Policy
- Safety Performance Monitoring process
- Safety training and communication
- Annual review and update
- Plan Approval

To monitor safety performance, agencies must set and monitor safety targets for the four performance measures have been established, which include:

- **Fatalities** – Total number of reportable fatalities and rate per total unlinked passenger trips by mode
- **Injuries** – Total number of reportable injuries and rate per total unlinked passenger trips by mode
- **Safety Events** – Total number of reportable events and rate per total vehicle miles, by mode
- **System Reliability** – Mean distance between failures by mode

Citylink North is currently in the process of developing their PTASP, in order to have an approved plan by the required deadline.