

Air Quality Memorandum (draft)

MEMO # 2040RTP-1

DATE April 13, 2015

FROM Cache Metropolitan Planning Organization (CMPO)

SUBJECT DRAFT CONFORMITY ANALYSIS FOR THE CACHE COUNTY 2040 REGIONAL TRANSPORTATION PLAN.

ABSTRACT

Portions of Cache County, Utah and Franklin County, Idaho were designated by EPA as a non-attainment area for fine particulate matter (PM_{2.5}) on December 14, 2009. The Moving Ahead for Progress in the 21st Century (MAP-21) and the Clean Air Act Amendments (CAAA) require that all regionally significant highway and transit projects in air quality non-attainment areas be derived from a “conforming” Regional Transportation Plan (RTP). A conforming Plan or Program is one that has been analyzed for emissions of controlled air pollutants and found to be within emission limits established in the State Implementation Plan (SIP), or found to be in compliance with EPA interim conformity requirements until a SIP is approved. This conformity analysis has been prepared by the Cache Metropolitan Planning Organization (CMPO), and submitted to the Federal Highway Administration and the Federal Transit Administration for their concurrence. This conformity analysis is being prepared under the March 2010 conformity regulations issued by the EPA and FHWA final rulemaking found in the MAP-21 legislation.

This document analyzes the air quality impacts of the proposed CMPO 2040 Regional Transportation Plan (RTP) to be presented to the CMPO’s Executive Council for adoption following a public comment process and review. This analysis also includes vehicle activity in Franklin County, Idaho.

Based on the analysis presented in this document, the Cache Valley 2040 RTP conforms to mobile source budget in the State Implementation Plan and also conforms to the interim regulations for PM_{2.5} non-attainment areas.

A. Conformity Requirements

This conformity analysis report compares expected emissions in various future years to emission “budget” thresholds as established by federal regulations. This analysis must include all anticipated capacity increasing transportation projects and also take in account the normal population growth impacts. All projects included in the Cache Valley 2040 RTP (see Appendix 1) were included in this emissions analysis. Franklin County Idaho does not have any capacity increasing projects planned to the year 2040.

Conformity Process

Since the commencement of the planning requirements in the late 1960s, further requirements (most recently the Moving Ahead for Progress in the 21st Century and the 1990 Clean Air Act Amendments) have added to the responsibilities and the decision making powers of local governments through the Metropolitan Planning Organization. The Cache Metropolitan Planning Organization (CMPO) is the Metropolitan Planning Organization for the Logan Urbanized Area.

In November 2009, the Environmental Protection Agency (EPA) issued rules establishing the interim procedures to be used, prior to the approval of a State Implementation Plan (SIP), to show that transportation plans and programs conform to air quality regulations. Developed by the State of Utah’s Department of Environmental Quality, a “SIP” is a specific plan to attain the air quality standard in Cache Valley for PM_{2.5} by a specified time. The SIP has been submitted to EPA but has yet to be approved for the Logan Ut/ID non-attainment area.

On March 25, 2015 notice was received from EPA to begin a 30 day comment period for initiating the “adequacy finding” process that will likely lead to a determination that the Motor Vehicle Emission Budget (MVEB) included in the submitted SIP is considered “adequate” and must be used for any transportation conformity demonstration. Under this process the MVEB from the SIP is approved in advance of approval of the entire SIP (at least for conformity analysis purposes). The SIP MVEB only applies to the Cache County portions since Idaho would have their own MVEB as part of the Idaho PM_{2.5} SIP.

Until the entire SIP is approved or the MVEB is officially approved by EPA as adequate, the interim conformity rules apply. Conformity regulations require that transportation projects that use federal funds, as well as “regionally significant” transportation projects sponsored by recipients of other federal funds, may not proceed in areas designated as “non-attainment (or maintenance) with respect to the National Ambient Air Quality Standards” until and unless a regional emissions analysis of the Plan and TIP demonstrates that conformity requirements are satisfied. This report summarizes CMPO’s conformity analysis of the 2040 RTP. Interim conformity requires that future PM_{2.5} emissions and precursor emissions must be lower than 2008 levels. The process for applying the “interim” rules requires that emissions from the northern Franklin County Idaho emissions also be included.

At the time of this draft report the “interim” emission budget is what is applicable to the CMPO RTP conformity analysis. However not knowing the timing of when the SIP MVEB might be officially designated as “adequate” by the EPA, this report also compares projected emissions to that anticipated budget. In the case of both budget thresholds the CMPO RTP establishes conformity.

This conformity analysis is subject to public and agency review, and requires the concurrence of the Federal Highway Administration and Federal Transit Administration.

Conformity Requirements

The CAAA established conformity requirements for transportation plans. These requirements are outlined in 40 CFR 93.109 and include the following:

Latest Planning Assumptions

Current travel models are based on the latest available (2015-2040) socioeconomic data from the Governor's Office of Management and Budget and the Division of Workforce Services. Current zoning and future land use plans were used to anticipate housing and employment growth to the year 2040. This socio-economic data were allocated to traffic analysis zones by CMPO for use in the travel demand model.

Latest Emissions Model

The conformity analysis presented in this document is based on the EPA mobile source emissions model MOVES 2014.

Consultation Process

Section 105 of 40 CFR Part 93 (Conformity Rule) requires, among other things, interagency consultation in the development of conformity determinations. As a member of the Interagency Consultation Team defined in the Conformity SIP adopted by the State Division of Air Quality and approved by EPA, CMPO subscribes to the interagency consultation procedures outlined in the Conformity SIP. As part of the consultation procedures defined in the Conformity SIP, the CMPO will present this report for review and public comment. The Utah Division of Air Quality, Idaho Division of Air Quality, UDOT, CVTD, FHWA, and FTA will also be provided with a copy of this report at the beginning of the public comment period.

This Conformity Analysis for the CMPO 2040 RTP will be made available for public inspection and comment from in accordance with EPA conformity regulations. This Conformity Analysis will also be posted on the CMPO website for public access and review during the public comment period. Written comments are due by the noticed comment period expiration date. A notice of RTP and this conformity report will be sent by e-mail to interested stakeholders and published in the Herald Journal newspaper.

Transportation Control Measures

A conformity analysis for the 2040 RTP must certify that nothing in the RTP interferes with the implementation of any Transportation Control Measure (TCM) identified in the applicable State Implementation Plan (SIP). At this time there is not an approved SIP addressing PM_{2.5} emissions in Cache County and consequently there are no TCMs for Cache County. In addition, there were no TCM activities identified as mobile source control strategies latest SIP revision submitted by the Utah State Governor in December 2014. Further the Idaho PM 2.5 SIP also does not have any TCM control strategies.

Emission Budget and Interim Emissions Budget

In the revised State Implementation Plan (SIP) submitted to EPA by the Utah Governor December 2014 a Motor Vehicle Emission Budget (MVEB) is identified for direct PM 2.5 as well as precursor emissions for NO_x and VOC pollutants. The Idaho SIP likewise identifies a MVEB. At the time of this report neither of the submitted SIPs has been approved by the EPA. Without approved SIPs the

Logan Utah-Idaho non-attainment area does not have an approved MVEB. If a MVEB was approved this conformity determination would need to establish that projected emissions to the last year (and selected interim years) of the RTP (2040) is less than the MVEB. Areas lacking an approved MVEB are required to prove conformity with an “interim” test. In this case the interim test for the Logan Utah-Idaho non-attainment area is that mobile source emissions must be less than those documented for the year 2008. Any analysis must include anticipated population growth and resulting increases in VMT as well as predictions of the impacts of new transportation projects or improvements.

EPA does not have to approve the entire SIP for a MVEB to become binding for conformity purposes. EPA can approve just the MVEB (by issuance of an “Adequacy Finding” for the MVEB). On March 24, 2015 the Federal Highway Administration received notice from EPA of their intent to begin the process of adequacy finding for the Cache County MVEB found in the submitted Utah SIP (does not include Idaho). This process includes a public comment period and other administrative approval steps. At the time of this report it is unclear if this process will culminate in an approved MVEB before the expiration of the previous FHWA conformity finding for the CMPO’s RTP. Rather than risk a “conformity lapse” this report established conformity to both the proposed MVEB and the interim less than 2008 budget.

Currently Conforming Plan and TIP

As demonstrated in this document, the 2040 RTP for Cache County satisfies interim conformity requirements. Also, all projects in the CMPO’s 2015-2020 Transportation Improvement Program (TIP) for Cache County are defined in the 2040 RTP. Therefore, the TIP also satisfies conformity requirements. The existing RTP 2035 established conformity and received such a finding from FHWA & FTA in a letter dated August 16, 2011.

Regionally Significant

All regionally significant projects, regardless of funding source (federal, state, or local) are included in the CMPO 2040 RTP. Regionally significant projects are identified as those projects functionally classified as principal arterial or higher, or certain minor arterials as identified through the interagency consultation process. At the time of this document preparation, Cache County has not designated any minor arterials as regionally significant. This action will be considered as needed in the future and in accordance with interagency consultation procedures. The current Utah Department of Transportation Functional Classification map was used to identify principal arterials. There are presently no planned regionally significant projects in Franklin County, Idaho. Interstate highways, freeways, expressways, principal arterials, light rail, and commuter rail are treated as regionally significant projects.

Because of their relative impact on air quality, all regionally significant projects regardless of funding source must be included in the regional emissions analysis, and any significant change in the design or scope of a regionally significant project must be reflected in the regional emissions analysis. The transportation projects identified in Appendix 1, including all regionally significant projects, have been included in the regional emissions analysis, and the modeling parameters used for these projects are consistent with the design and scope of these projects as defined in the 2040 RTP. In order to improve the quality of the travel model, other minor arterials and collectors, as well as local transit service, are also included in the regional travel model (and thus the regional emissions analysis) but these facilities are not considered regionally significant since they do not serve regional transportation needs as defined by EPA.

PM_{2.5} “Hot Spot” Analysis

In addition to the regional emissions conformity analysis presented in this document, Section 93.116 of the Transportation Conformity Regulations states that specific projects within particulate matter (PM_{2.5}) non-attainment areas are required to prepare a “hot spot” analysis of emissions. The “hot spot” analysis serves to verify that localized emissions from a specific project will meet air quality standards. This requirement is addressed during the NEPA phase of project approval before FHWA or FTA can issue final project approval.

B. Transportation Modeling

Cache County Utah Travel Demand Model (TDM)

For Cache County Utah a travel demand model was used to estimate vehicle miles of travel (VMT) and hourly speed profiles for the 2008 base year (interim test) and analysis years 2019, 2024, 2034, and 2040. Improvements to the CMPO travel model practice and procedure is an ongoing process. This conformity analysis is based on the latest version of the CMPO travel model. The CMPO travel modeling domain is only for Cache County Utah.

The CMPO recently complete a major update of its TDM. This included updated traffic analysis zones geography, sub county land use forecasting using CommunityVis GIS, socioeconomic updates based on the Utah Governors Office of Management and Budget countywide totals for employment and population and improved school “special trip” generator algorithms. In addition, the data collected from a 2012 home travel survey and transit on-board survey were integrated into the model with this update.

Planning Process

Federal funding for transportation improvements in urban areas requires that these improvements be developed through a comprehensive, coordinated, and continuous planning process involving all affected local governments. The planning process is certified annually by the CMPO Executive Council and reported to the Federal Highway Administration and Federal Transit Administration.

The documentation of the planning process includes, at a minimum, a twenty year Regional Transportation Plan updated at least every four years; and a three-year to five-year Transportation Improvement Program (capital improvement program) updated and adopted at least every four years. The planning process includes the involvement of local elected officials, state agencies, and the general public.

Travel Characteristics

The CMPO travel model is used to estimate vehicle miles traveled (VMT) and vehicle speeds for current and future transportation networks. The model VMT for 2013 is factored to match the 2013 VMT reported by UDOT through the HPMS data reporting system. The resulting 2013 HPMS adjustment factor (see Table 1 below) for each road type is then applied to the travel model VMT for future years resulting in the HPMS adjusted future VMT. The CMPO travel demand model is based on the latest available planning assumptions and a computerized representation of the transportation network of highways and transit service. The travel model files used for this conformity analysis are available upon request.

Table 1
Summary of 2013 Model to HPMS Factors

Roadway Type	2013 HPMS to Model Adj Factor
Rural Interstate	0.00
Rural Other Principal Arterial	1.03
Rural Minor Arterial	0.92
Rural Major Collector	1.24
Rural Minor Collector	1.41
Rural Local	6.55
Urban Interstate	0.00
Urban Freeway and Expressway	0.00
Urban Other Principal Arterial	1.06
Urban Minor Arterial	1.38
Urban Collector	0.73
Urban Local	3.20

Table 2 summarizes the weekday vehicle miles traveled (VMT) for Cache County and Franklin County and for each horizon year in the regional emissions analysis. The HPMS adjusted average weekday VMT data shown in Table 2 is adjusted further for winter variations as part of the emission projection calculation in a separate step.

Table 2

Weekday VMT	2019	2024	2034	2040
Cache County, Utah	2,764,131	3,063,264	3,785,650	4,178,123
Franklin County, Idaho	259,348	272,100	302,567	318,388

C. Emission Modeling

The MOVES model computer program developed by the EPA and is the required platform to complete emission modeling for conformity purposes. Inputs to the MOVES 2014 model include vehicle population, emission testing programs, fuel supply, fuel formulation, meteorological conditions, and vehicle age.

I/M Programs

Cache County, UT implemented a vehicle emission and testing (I/M) program beginning January 2014. Franklin County, ID does not have vehicle emission and testing programs at this time. Cache County's I/M program is comprised of a decentralized, test and repair network and requires a biennial test for all vehicles 1969 and newer. The program exempts vehicles less than six years old from an emission inspection.

Vehicle Age Profile

The Cache County vehicle age profile used in the MOVES 2014 emissions model is based on 2011 Utah Department of Motor Vehicle registration data. The Idaho Department of Environmental Quality indicated that the use of the Cache County based vehicle age profiles represents a reasonable estimate of the vehicle age profile for Franklin County, Idaho.

Vehicle Mix

The vehicle mix, or vehicle type VMT profile, for Cache County used in the MOVES 2014 emissions model is based on MOVES2014 default adjusted to 2008 Utah Department of Transportation data. The Idaho Department of Environmental Quality indicated that the use of the Cache County based vehicle mix represents a reasonable estimate of vehicle activity for Franklin County, Idaho.

Fuel Supply/Formulation

The fuel formulation and supply is based on MOVES2014 default data.

Meteorological Conditions

The Meteorological Conditions used in the MOVES2014 model are those utilized in the PM2.5 SIP for the Logan, UT-ID Nonattainment Area. The Idaho Department of Environmental Quality indicated that the use of the Cache County based Meteorological Conditions is a reasonable estimate of vehicle activity for Franklin County, Idaho.

Vehicle Miles Traveled (VMT)

The VMT for Cache County was determined by use of the CMPO's updated Travel Demand Model (TDM). The travel model base year was calibrated with observed transit and traffic count data (HPMS). Forecasted socio-economic and future transportation network inputs were used by the model to project future year VMT. Franklin County Idaho does not have a travel model. VMT estimates for Franklin County Idaho are based on the MOVES2014 default data. All VMT was adjusted seasonally (winter time) and for week day. These adjustments were based on local year round traffic counts.

Speed Profile

The CMPO travel model was used to establish existing and anticipated travel speeds as inputs to the emission analysis. The Idaho Department of Environmental Quality indicated that the use of the

Cache County based speed profile represents a reasonable estimate of vehicle activity for Franklin County, Idaho.

D. Conformity Determination

The following conformity findings for the Cache 2040 Regional Transportation Plan (RTP) are based on the transportation systems and planning assumptions described in this report, and the vehicle emissions model approved by EPA, MOVES 2014.

Logan Utah/Idaho PM_{2.5} Non-attainment Area

Portions of Cache County, Utah and Franklin County, Idaho were designated by EPA as a PM_{2.5} non-attainment area in December of 2009. Since a PM_{2.5} SIP for the Cache Valley area has not been submitted to EPA for approval, the Cache Valley PM_{2.5} area is subject to interim conformity requirements. Interim conformity requirements are that Cache Valley Area emissions related to PM_{2.5} pollution must be lower than 2008 levels. The analysis years 2019, 2024, 2034, and 2040 were selected in accordance with the requirements of 40 CFR Section 93.119(e).

Transportation capacity increasing projects found in Appendix 1 & 2 were included as part of this air quality analysis and resulting conformity report. Currently there are no transportation capacity increasing projects planned or scheduled for Franklin County, Idaho in the 2040 planning horizon. Since Franklin County is not part of an urbanized area, Metropolitan Planning Regulations requiring interim conformity determinations do not apply and no Long Range Transportation Plan has been developed.

PM_{2.5} related emissions are present in two varieties referred to as direct emissions and precursor emissions. In this analysis, direct emissions of PM_{2.5} consist of particles emitted from vehicle exhaust and brake wear, and tire wear. Precursor emission of PM_{2.5} refers to vehicle exhaust emissions of gaseous nitrogen oxides (NO_x) that change to a particulate form through subsequent chemical reactions in the atmosphere. Nitrogen oxides Volatile Organic Compounds (VOC) are the main component of mobile source PM_{2.5} emissions in the Cache Valley Area.

As summarized in Tables 5a, 5b and 5c, emission estimates for the CMPO 2040 RTP satisfy the “Build < 2008” test for direct emissions and precursor emissions of PM_{2.5} in the Cache Valley non-attainment area. From this demonstration it is concluded that the CMPO 2040 RTP conforms to EPA interim conformity requirements for PM_{2.5} non-attainment areas.

Table 5a
Logan Utah-Idaho PM 2.5 Non-attainment Area
NOx Precursor Conformity Determination

Year		2019	2024	2034	2040
VMT	Seasonal (Week Day) Vehicle Miles Traveled (VMT)				
	Cache County Utah	3,027,077	3,355,038	4,145,464	4,575,781
	Franklin County Idaho	259,349	272,100	302,568	318,388
	Total	3,286,426	3,627,138	4,448,031	4,894,170
EMISSION BUDGETS	2008 Emissions Interim Budget (ton/day)				
	Cache County Utah	6.79	6.79	6.79	6.79
	Franklin County Idaho	0.63	0.63	0.63	0.63
	Total	7.42	7.42	7.42	7.42
	2015 SIP MVEB Budget (ton/day)				
	Cache County	4.49	4.49	4.49	4.49
	Total	4.49	4.49	4.49	4.49
	CONFORMITY RESULTS				
Emission Projections (ton/day)					
Cache County Utah	2.06	1.36	0.83	0.80	
Franklin County Idaho	0.19	0.12	0.07	0.06	
Total	2.25	1.48	0.90	0.86	
	Conformity Results				
Projection < 2008 Interim Budget Test	PASS	PASS	PASS	PASS	
Projection < SIP MVEB Test	PASS	PASS	PASS	PASS	

Table 5b
Logan Utah-Idaho PM 2.5 Non-attainment Area
Direct Particulates Conformity Determination

Year		2019	2024	2034	2040
VMT	Seasonal Vehicle Miles Traveled (VMT)				
	Cache County Utah	3,027,077	3,355,038	4,145,464	4,575,781
	Franklin County Idaho	259,349	272,100	302,568	318,388
	Total	3,286,426	3,627,138	4,448,031	4,894,170
EMISSION BUDGETS	2008 Emissions Interim Budget (ton/day)				
	Cache County Utah	0.4	0.4	0.4	0.4
	Franklin County Idaho	0.03	0.03	0.03	0.03
	Total	0.43	0.43	0.43	0.43
	2015 SIP MVEB Budget (ton/day)				
	Cache County	0.32	0.32	0.32	0.32
	Total	0.32	0.32	0.32	0.32
	CONFORMITY RESULTS				
Emission Projections (ton/day)					
Cache County Utah	0.159	0.12	0.09	0.10	
Franklin County Idaho	0.011	0.008	0.005	0.005	
Total	0.170	0.128	0.095	0.105	
	Conformity Results				
Projection < 2008 Interim Budget Test	PASS	PASS	PASS	PASS	
Projection < SIP MVEB Test	PASS	PASS	PASS	PASS	

Table 5c
Logan Utah-Idaho PM 2.5 Non-attainment Area
VOC Conformity Determination

Year		2019	2024	2034	2040
VMT	Seasonal Vehicle Miles Traveled (VMT)				
	Cache County Utah	3,027,077	3,355,038	4,145,464	4,575,781
	Franklin County Idaho	259,349	272,100	302,568	318,388
	Total	3,286,426	3,627,138	4,448,031	4,894,170
EMISSION BUDGETS	2008 Emissions Interim Budget (ton/day)				
	Cache County Utah	4.93	4.93	4.93	4.93
	Franklin County Idaho	0.45	0.45	0.45	0.45
	Total	5.38	5.38	5.38	5.38
	2015 SIP MVEB Budget (ton/day)				
	Cache County	3.23	3.23	3.23	3.23
Total	3.23	3.23	3.23	3.23	
CONFORMITY RESULTS	Emission Projections (ton/day)				
	Cache County Utah	1.8563	1.45	1.08	1.06
	Franklin County Idaho	0.19	0.15	0.10	0.10
	Total	2.04	1.60	1.18	1.16
	Conformity Results				
	Projection < 2008 Interim Budget Test	PASS	PASS	PASS	PASS
Projection < SIP MVEB Test	PASS	PASS	PASS	PASS	

Appendix-1

Highway and Transit Projects 2040 RTP

Cache County

Phase 1 Capacity Projects 2015 to 2024							
Phase	Project #	Length (Miles)	Funding/Ownership	Project Name	Description	Lanes	2015 Cost
1	I-1	1.45	Local	1200 East (Phase I)	Unbuilt sections (No Logan to Smithfield)	2 Lanes, Median	\$8,115,360
1	I-2	0.80	Local	200 East Phase I	3100 North to 3700 North (Hyde Park)	2 Lanes, Median	\$6,491,300
1	I-3	1.30	Local	3100 North	200 East to 1200 East (No Logan, Hyde Park)	2 Lanes, Median	\$7,268,116
1	I-4	0.85	Local	200 West	1800 North to 2500 North (Logan, No Logan)	2 Lanes, Median	\$4,757,280
1	I-5	0.50	Local	1800 North	600 West to 10th West (Logan)	2 Lanes, Median	\$2,798,400
1	I-6	2.55	Local	600 West	400 North to Hwy 89/91 (Logan)	2 Lanes, Median	\$15,992,120
1	I-7	0.22	Local	2300 South	Realign to 450 North & Main (Millville)	2 Lanes, Median	\$1,231,296
1	I-8	0.40	Local	Mill Road	Realign to 3200 South (Nibley/Millville)	2 Lanes, Median	\$2,242,470
1	I-9	0.19	Local	100 West	600 South to Golf Course Rd (Logan)	2 Lanes, Median	\$2,984,312
1	I-10	6.35	State	SR-30 Phase I	10th West to SR 23 (Logan/County)	4 Lanes, Median	\$66,261,680
1	I-11	0.50	Local	500 North	300 East to 650 East (Richmond Canyon)	2 Lanes	\$400,000
1	I-12	NA	Local	1400 North 600 West	Intersection Signalization	2 Lanes, Median	\$2,000,000
1	I-13	0.25	Local	400 North	600 West to 800 West Linkage (Logan)	2 Lanes	\$1,399,200
1	I-14	NA	Local	Roadway Safety Projects	Systemic and Spot projects in various locations TBD	NA	\$3,000,000
1	I-15	1.40	State	10th West Completion	1400 N. to 2500 N, (Logan)	4 Lanes, Median	\$14,229,600
PHASE 1 TOTALS							\$121,941,534
PHASE 1 TOTALS FOR COUNTY							\$58,679,854
PHASE 1 TOTALS FOR STATE							\$80,491,280

Phase 2 Capacity Projects 2025 to 2034							
Phase	Project #	Length (Miles)	Funding/Ownership	Project Name	Description	Lanes	2015 Cost
2	II-1	12.75	State	Western Arterial	Hwy 89/91 to 6200 North (Logan/County)	4 Lanes, Median	\$129,548,921
2	II-2	3.10	State	SR-30 Phase II	Hwy 23 to Cache County Line (County)	4 Lanes, Median	\$36,009,600
2	II-3	0.55	Local	200 East Phase II	3700 North to 4100 North (Hyde Park)	2 Lanes, Median	\$3,078,240
2	II-4	0.50	Local	200 East Phase III	1400 North to 1800 North (Logan, No Logan)	4 Lanes, Median	\$4,065,600
2	II-5	1.60	State	SR-30 Phase III	10th West to Main Street (Logan)	4 Lanes, Median	\$18,585,600
2	II-6	1.00	Local	400 east/Canyon Rd	300 South to 400 North (Logan)	4 Lanes, Median	\$8,131,200
2	II-7	0.40	Local	200 East Phase IV	300 South to Gateway Drive (Logan, River Heights)	2 Lanes, Median	\$3,950,045
2	II-8	1.36	Local	Gateway Drive (South)	100 North (Providence) to Mill Road (Millville)	2 Lanes, Median	\$7,611,648
2	II-9	3.80	Local	4400 South	Hwy 89/91 to Hwy 165 (Nibley)	2 Lanes, Median	\$21,273,605
2	II-10	2.82	State	SR-101	200 West (Hyrum) to Hwy 89/91	2 Lanes, Median	\$19,739,004
2	II-11	1.92	Local	800 West Phase I	3200 South to Hwy 89/91 (Nibley)	2 Lanes, Median	\$10,727,275
2	II-12	3.15	State	Logan Main/ 100 West	One way Couplets (Logan)	3 Lane -One Way Streets	\$60,000,000
2	II-13	0.65	Local	600 East	300 North to Hwy 165 (Hyrum)	2 Lanes, Median	\$3,637,920
2	II-14	1.60	Local	1200 East (Phase II)	Hwy 89 to 1800 North (Logan)	2 Lanes, Median	\$8,954,880
2	II-15	NA	Local	Roadway Safety Projects	Systemic and Spot projects in various locations TBD		\$5,000,000
PHASE 2 TOTALS							\$340,313,538
PHASE 2 TOTALS FOR COUNTY							\$76,430,412
PHASE 2 TOTALS FOR STATE							\$263,883,125

Phase 3 Capacity Projects 2035 to 2040							
Phase	Project #	Length (Miles)	Funding/Ownership	Project Name	Description	Lanes	2015 Cost
3	III-1	1.2	Local	250 East	4100 North (County) to 600 South (Smithfield)	2 Lanes, Median	\$6,673,233
3	III-2	4.6	State	Hwy 91	1400 North (Logan) to 600 South (Smithfield)	6 Lanes, Median	\$52,852,800
3	III-3	7.6	State	Mendon Road	10th West (Logan) to Hwy 23 (Mendon)	4 Lanes, Median	\$78,973,287
3	III-4	3.4	State	Hwy 89/91	3200 South (Nibley) to 100 West (Logan)	6 Lanes, Median	\$38,913,600
3	III-5	1.4	Local	600 South	Hwy 91 to 1200 East (Smithfield)	2 Lanes, Median	\$7,835,520
3	III-6	4.0	Local	1200 West	300 North (Hyrum) to Hwy 89/91 (Logan)	2 Lanes, Median	\$22,387,200
3	III-7	0.6	Local	300 South (aka 1700 South)	Hwy 165 to 200 West (Providence)	2 Lanes, Median	\$3,414,048
3	III-8	1.2	Local	Center Street	Hwy 91 to 400 East (Hyde Park)	2 Lanes, Median	\$6,923,527
3	III-9	NA	Local	Roadway Safety Projects	Systemic and Spot projects in various locations TBD		\$3,000,000
PHASE 3 TOTALS							\$220,973,214
PHASE 3 TOTALS FOR COUNTY							\$50,233,528
PHASE 3 TOTALS FOR STATE							\$170,739,687

Capacity Projects Needed (but not enough funding by 2040)							
Phase	Project #	Length (Miles)	Funding/Ownership	Project Name	Description	Lanes	2015 Cost
UF	UF-1	0.9	Local	100 East	300 South to 400 North (Logan)	2 Lanes, Median	\$6,025,714
UF	UF-2	1.1	Local	400 North	Hwy 89/91 to Center (Wellsville)	2 Lanes, Median	\$7,318,080
UF	UF-3	2.1	Local	Airport Rd	1000 West to 3400 North (County, Logan)	4 Lanes, Median	\$11,674,466
UF	UF-4	2.6	Local	600 West	400 North to 2500 North (Logan)	2 Lanes, Median	\$14,551,680
UF	UF-5	1.2	Local	100 North	Hwy 165 to 300 East (Providence)	2 Lanes, Median	\$6,716,160
UF	UF-6	2.2	Local	200 West	2500 North to 600 South (No Logan, Smithfield)	2 Lanes, Median	\$14,313,765
UF	UF-7	3.35	Local	4000 South	Hwy 89/91 to Hwy 165 (County, Nibley)	2 Lanes, Median	\$22,286,880
UF	UF-8	2.1	Local	1200 West	Remaining Unfinished Segments	2 Lanes, Median	\$13,970,880
UF	UF-9	1.03	Local	800 West Phase II	3200 South to 4000 South (Nibley)	2 Lanes, Median	\$5,748,362
PHASE 4 TOTALS							\$102,605,987
PHASE 4 TOTALS FOR COUNTY							\$102,605,987
PHASE 4 TOTALS FOR STATE							\$0

Major Roadway Preservation Projects (2015 to 2040)							
Phase	Project #	Length (Miles)	Funding/Ownership	Project Name	Description	Lanes	2015 Cost
Phase I: 2015 to 2024							
1		1.7	Local	3600 West	Trenton to Amalga	2 Lanes	\$100,000
1		NA	Local	TBD by COG Process	Various Projects outside MPO area		\$3,300,032
Phase II: 2025 to 2034							
2		NA	Local	TBD by COG Process	Various Projects outside MPO area		\$4,207,901
Phase III: 2035 to 2040							
3		NA	Local	TBD by COG Process	Various Projects outside MPO area		\$2,666,969
ALL PHASE PRESERVATION TOTALS							\$10,274,901

Appendix-2
Highway and Transit Projects
2040
Franklin County

Currently there are no transportation capacity projects planned or scheduled for Franklin County, Idaho in the 2040 planning horizon. Since Franklin County is not part of an urbanized area, Metropolitan Planning Regulations requiring interim conformity determinations do not apply and no Long Range Transportation Plan has been developed.

Appendix-3

List of Acronyms

ADT	Average Daily Traffic
CAAA	Clean Air Act Amendments
CMPO	Cache Metropolitan Planning Organization
CVTD	Cache Valley Transit District
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HPMS	Highway Performance Management System
IDOT	Idaho Department of Transportation
IDEQ	Idaho Department of Environmental Quality
MPO	Midland-Odessa Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standard
NEPA	National Environmental Policy Act
PM 2.5	Particulate Matter less than 2.5 micrometers
RTP	Regional Transportation Plan
SIPs	State Implementation Plans
VMT	Vehicle Miles Traveled