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Utah Association of Counties

Robert Grow  
Envision Utah

Evan Curtis  
State Planning Coordinator

Andrew Gruber  
Executive Director

January 11, 2018

Members of the Regional Growth Committee and Other Interested Persons:

A meeting of the Regional Growth Committee will be held on **Thursday, January 18, 2018 at 9:30 a.m. in the Wasatch Front Regional Council offices located at 295 North Jimmy Doolittle Road, in Salt Lake City.** The Agenda will be as follows:

### Welcome and Introductions

1. **Action:** Minutes from the October 12, 2017 Meeting
2. **Opportunity for Public Comment**
3. **Chair Report**
4. **Information/Discussion:** Wasatch Choice 2050 Draft Vision
5. **Information/Discussion:** Transportation Governance and Funding Task Force and Legislative Preview
6. **Action:** Regional Transportation Plan 2015-2040: Amendment #5 final recommendation
7. **Information/Discussion:** RGC Preliminary Meeting Ideas
8. **Other Business**

**Next Meeting: March 15, 2018**

*Note: Informational materials can be located on WFRC's website at [www.wfrc.org](http://www.wfrc.org)*

*Public participation is solicited without regard to age, sex, disability, race, color or national origin. Persons who require translation for a meeting should contact the WFRC's Title VI Administrator at 801-363-4250 or [apearson@wfrc.org](mailto:apearson@wfrc.org) at least 72 hours in advance.*

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**Minutes**  
Regional Growth Committee  
Meeting of October 12, 2017

A meeting of the Regional Growth Committee was held on Thursday, October 12, 2017 in the offices of the Wasatch Front Regional Council, 295 North Jimmy Doolittle Road, Salt Lake City, Utah.

**Welcome and Introductions [Recording 00:00]**

Councilmember Aimee Winder Newton, Salt Lake County, chaired the meeting on behalf of Mayor Ben McAdams. She called the meeting to order at 9:30 a.m. Ms. Winder Newton welcomed committee members and guests, and introductions were made. The following were in attendance:

**RGC Members and Alternates Present**

| IN ATTENDANCE | 2017 RGC MEMBERS  |
|---------------|---|
|               | <b>BOX ELDER COUNTY</b>                                   |
|               | Member - Karen Cronin (Perry)                             |
|               | Alternate - Jeff Scott (Box Elder)                        |
|               | <b>DAVIS COUNTY</b>                                       |
| x             | Member - Randy Lewis (Bountiful)                          |
| x             | Alternate - Len Arave (North Salt Lake)                   |
|               | Member - Don Carroll (Fruit Heights)                      |
|               | Alternate - Erik Craythorne (West Point)                  |
|               | <b>MORGAN COUNTY</b>                                      |
| x             | Member- John Barber (Morgan County)                       |
|               | Alternate - Tina Cannon                                   |
|               | <b>SALT LAKE COUNTY</b>                                   |
|               | Member - Ben McAdams ( <i>Chair</i> ) (Salt Lake County)  |
|               | Alternate - Larry Johnson (Taylorsville)                  |
|               | Member - Ron Bigelow (West Valley City)                   |
| x             | Member - Aimee Winder Newton (Salt Lake County)           |
|               | Member - Ted Eyre (Murray)                                |
|               | Member - Derk Timothy (Bluffdale)                         |
| x             | Alternate - Jackie Biskupski (Salt Lake City)             |
|               | Alternate - Cherie Wood (South Salt Lake)                 |
|               | Alternate - Troy Walker (Draper)                          |
| x             | Alternate - Jeff Silvestrini (Millcreek)                  |
|               | <b>TOOELE COUNTY</b>                                      |
| x             | Member - Wade Bitner (Tooele County)                      |
|               | Member - Brent Marshall (Tooele County)                   |
| x             | Alternate - Dave McCall (Tooele City)                     |
|               | <b>WEBER COUNTY</b>                                       |
| x             | Member - Mark Allen (Washington Terrace)                  |
| x             | Alternate - Norm Searle (Riverdale)                       |
|               | Member - James Ebert ( <i>Vice Chair</i> ) (Weber County) |
|               | Alternate - Brent Taylor (North Ogden)                    |
|               | <b>OTHER APPOINTMENTS:</b>                                |
|               | <b>Utah Transportation Commission:</b>                    |
|               | Member - Meghan Holbrook                                  |
|               | Alternate - Dannie McConkie                               |
|               | <b>UTA Board:</b>   |
|               | Member - Charles Henderson                                |
|               | Alternate - Keith Bartholomew                             |
|               | <b>Utah Air Quality Board:</b>                            |
|               | Member - Stephen Sands                                    |
|               | Alternate - Erin Mendenhall                               |
|               | <b>Envision Utah:</b>                                     |
|               | Member - Robert Grow                                      |
|               | Alternate - Ari Bruening                                  |
|               | <b>NON-VOTING MEMBERS</b>                                 |
|               | <b>UDOT Representative:</b>                               |
|               | Member - Nathan Lee                                       |
| x             | Alternate - Jeff Harris                                   |
|               | <b>UTA Representative:</b>                                |
| x             | Member - Laura Hanson                                     |
|               | Alternate - GJ LaBonty                                    |
|               | <b>Air Quality Board, DAQ Staff Representative:</b>       |
|               | Bryce Bird  |
|               | <b>FHWA - UTAH Division Representative:</b>               |
| x             | Member - Ivan Marrero                                     |
| x             | Alternate - Steve Call                                    |
|               | <b>Utah League of Cities &amp; Towns Rep:</b>             |
| x             | Gary Uresk  |
|               | <b>Utah Association of Counties Representative:</b>       |
| x             | Wilf Sommerkorn   |
|               | <b>Mountainland Association of Governments:</b>           |
| x             | Gary Gygi   |
|               | <b>WFRC Appointments from other organizations:</b>        |

|  |   |
|--|---|
|  | Christine Richman - Utah Urban Land Institute |
|  | John Bennett - GOMB/Quality Growth Commission |
|  | Abby Osborne - Utah Transportation Coalition  |
|  | Reid Ewing - University of Utah               |

### RGC Representatives and Others Present

|                         |                      |
|-------------------------|----------------------|
| Jared Andersen          | Weber County         |
| Ryan Beck               | Envision Utah        |
| Julie Bjornstad         | WFRC                 |
| Roger Borgenicht        | UBET                 |
| Carlton Christensen     | Salt Lake County     |
| Bergen Eskildsen        | WFRC                 |
| Russ Fox                | Draper City          |
| Katie Gerard            | WFRC                 |
| Ned Hacker              | WFRC                 |
| Robert Hale             | Midvale City         |
| Scott Hess              | WFRC                 |
| Jory Johner             | WFRC                 |
| Hal Johnson             | UTA                  |
| Linda Johnson           | Breathe Utah         |
| Ted Knowlton            | WFRC                 |
| Brigitte Mandel         | FHWA                 |
| Heather McLaughlin-Kolb | WFRC                 |
| Kevin McLeod            | Weber County         |
| Jake Meibos             | Plain City           |
| Callie New              | WFRC                 |
| Helen Peters            | Salt Lake County     |
| Keith Peterson          | Salt Lake City       |
| Jordan Pieper           | ASSIST, Inc.         |
| Matt Robertson          | Harrisville City     |
| JoAnn Seghini           | Midvale City Mayor   |
| Brian Wilkinson         | Urban Land Institute |
| Nicole Zinnanti         | Assist Inc.          |

### Action: Approval of Minutes [Recording 02:50]

Councilmember Winder Newton entertained a motion to approve the minutes of the Regional Growth Committee meeting held August 17, 2017. Mayor Mark Allen, Washington Terrace, motioned to approve these minutes, and it was seconded by Commissioner Wade Bitner, Tooele County. The minutes were unanimously approved.

### Opportunity for Public Comment [Recording 03:13]

There were none.

### Chair Report [Recording 03:29]

Councilmember Winder Newton informed the committee that a lot has been happening related to the Transportation Funding and Governance Taskforce. She asked Andrew Gruber, Wasatch Front Regional Council, to provide an update. Mr. Gruber reported on the activities of the Taskforce, and noted that Mayor Jackie Biskupski and Mayor Gary Gygi are also members, and asked them to comment on this as well. Mr. Gruber reminded the committee that during the last legislative session a bill was passed to create the Transportation Funding and Governance Taskforce. This taskforce is made up of a collection of legislators and local elected officials, and is chaired by Senator Wayne Harper and Representative Mike Schultz. The work of the Taskforce is being conducted over the next several months, and is required to report back to the legislature in December, with the idea that there could be legislative action taken in response to recommendations from the Taskforce in the next legislative session. Mr. Gruber stated that it is also possible that the Taskforce work will be extended for another year because the issues that are being dealt with warrant significant thought and consideration. The areas that the subgroups are working on include: Governance, Funding, and Land Use, Economic Development, Active Transportation, and Aviation.

Each of the working groups have made recommendations, or are in the process of making recommendations to the full Taskforce. The Taskforce has its next meeting on October 23, 2017, and will be continuing to discuss all of those recommendations, and deliberate on what recommendations they as an entire Taskforce, want to take forward to the legislature. The Funding working group has recommended at least a maintenance if not an enhancement of the investment that is happening in transportation infrastructure in the state of Utah, reflecting the fact that our population continues to grow and is the fastest growing state in the nation. He said that we need to

keep investing in a variety of transportation choices to provide good mobility and to maintain the state of the infrastructure that we have in the good repair. They have also been looking at a variety of options for studying the possible conversion from the regular gas tax to a per mile charge. The Governance working group is looking at potential changes to the structure of how transportation is governed in the state going forward. The Economic Development and Land Use working group's prime interest is to ensure and maximize the investments being made with state infrastructure dollars are appropriately coordinated with local land use decisions.

Mayor Biskupski, Taskforce member representing the Utah League of Cities and Townes, commented that the League hasn't seen anything that they feel comfortable supporting on Land Use ideas. She said that there needs to be a great deal of conversation around who controls what, and why? This is not just for Land Use, but also for UDOT, and UTA. She asked the question that whether we want the state dictating changes in organizations that already exist. She said that if anything, it is more likely the structure of the board for UTA that might change through the legislature, but nothing bigger than that.

Mayor Gygi, Taskforce member representing Mountainland Association of Governments, commented that he agreed with Mayor Biskupski, saying that the main issue with our MPO is around land issues, and making sure that the local municipalities are not circumvented.

#### **Information/Discussion: Wasatch Choice 2050 Preferred Scenario [Recording 12:54]**

Councilmember Winder Newton explained that the Wasatch Choice 2050 is the region's shared vision for coordinated transportation, land use, and economic development. She said that the staff is now working to consolidate the feedback that they received, and analyze the data into a preferred scenario.

Ted Knowlton, Wasatch Front Regional Council, introduced the key elements of the preferred scenario and steps to get feedback on the preferred scenario. He said that the Wasatch Choice 2050 seeks to provide enough geographic details to be of value to local planning efforts, while also developing the key regional planning products of the WC2050 vision, the 2019-2050 Regional Transportation Plan, and the 2018-2023 Comprehensive Economic Development Strategy. The effort also aims to find solutions that are at the nexus of transportation, land use, and economic development planning. In the last couple of years we have established goals, gone through scenarios which were developed based on local feedback, evaluated those, and in the next year want to bring forward one draft of a preferred scenario. The following feedback will be discussed:

- What mixed use centers do you support?
- Should new mixed-use centers be actively explored?
- How do the other elements support these centers?
  - Transportation
  - Economic Development
- What job centers do you support?
- Should new job centers be actively explored?
- How do the other elements support these job centers?
- How might proposed roads affect congestion?
- How might proposed roads affect access to destinations?
- How do they support land use and economic development goals?

There was discussion held among the committee.

#### **Information/Discussion: 2019-2050 RTP Phasing and Amendment Considerations [Recording 41:21]**

Councilmember Winder Newton reminded the committee that last year the Council adopted new regional goals. Since then, the Regional Growth Committee has been advising staff on how to assess these plans and projects to help achieve the new goals. She stated that during this meeting we will

be providing guidance on the Regional Transportation Plan (RTP) Phasing Criteria for roadways, transit, and active transportation which will help us identify when projects are needed between now and 2050, in ten year phases.

Callie New, Wasatch Front Regional Council, discussed the phasing process of the Regional Transportation Plan and said that the RTP is a dynamic document and that WFRC seeks to be responsive to the transportation needs of our communities and our partners. She said that we recognize and anticipate between when the 2015-2040 RTP was adopted last May to the time the next RTP is adopted four years from now, that we would receive requests to amend the project list. Because WFRC works so closely with the cities, counties, and transportation partners to proactively identify projects as they arise, there will occasionally be amendments to the RTP. The amendment process includes:

- Requests submitted to WFRC staff
- WFRC staff reviews the request
- Three amendment levels:
  - Staff modification
  - Board modification for non-regionally significant projects
  - Full amendment for regional significant projects
- May require air quality conformity analysis and public comment

The RTP is required to be fiscally constrained. WFRC has reviewed the financial impacts of all the following amendment request and has determined that they can be accommodated due to additional revenue above RTP planning assumptions and project efficiencies. This level of amendment requires a 30-day minimum public comment period. A presentation was given to the committee, and there was a group discussion.

**Action: 2015-2040 RTP Amendment Number 5 release for public comment [Recording 01:02:18]**

Councilmember Winder Newton explained that in the last RGC meeting, amendments were introduced to the current 2015-2040 RTP. These have since been released for public comment, and today we are going to ask the committee to make a recommendation to the council for final action on these proposed amendments.

Jory Johner, Wasatch Front Regional Council, discussed the Amendment #5 overview. This included:

- 8 total requests for approximately \$194 million
- Projects seeking Weber County Sales Tax Funding
  - Three projects (\$5.5 million)
- Funding source unknown
  - One UTA and UDOT sponsored project (\$34.5 million)
  - One Salt Lake County project (\$100 million)
- Utah State Correctional Facility Funding
  - Two projects to serve the new Utah State prison (\$30 million)
- Partially funded and seeking STP funds
  - One municipality/UDOT project (\$24 million)

The 8 projects include:

1. 1100 North – Harrisville City: Provides a link between two arterial streets and decreases the amount of traffic between residential neighborhoods. This also provides access to Highway 89 on the west and Washington Boulevard on the east.
2. 3600 West – Plain City: Provides for added shoulders and a consistent cross-section, safety improvements, improved access for adjoining properties, and center turn lane at intersections for improved mobility.
3. Depot Drive – Weber County: Provides connection to the Weber Area Justice Multi-Use Facility, redesign the intersection of 12<sup>th</sup> Street (SR-39) and Depot Road, and widening will incorporate a deceleration lane.

4. 5600 West Transit – Utah Transit Authority: Replace Phase 1 BRT on 5600 West from 6200 South to 2700 South with Phase 1 Express Bus/Core Route on 5600 West from Old Bingham LRT Station to the International Center, Salt Lake International Airport, and downtown Salt Lake.
5. 7200 West – Salt Lake County: Provides access to the new Utah State Correctional Facility.
6. 8000 West – Salt Lake County: Provides one of two accesses to the new Utah State Correctional Facility.
7. 700 N, 7200 W, 1400 N – Salt Lake County: Provides one of the accesses to the new Utah State Correctional Facility.
8. Wasatch Boulevard – Cottonwood Heights: More efficient local traffic circulation, major connection between Big and Little Cottonwood ski resorts, increased access to both Knudsen Corner development and proposed new development at the gravel pit.

Councilmember Winder Newton entertained a motion to release amendment #5 for public comment. Councilmember John Barber, Morgan County, motioned to approve, and it was seconded by Mayor Randy Lewis, Bountiful City. The motion passes.

#### **Information/Discussion: Point of the Mountain Study [Recording 01:21:18]**

Ryan Beck, Envision Utah, gave an update on the Point of the Mountain Study. He said that the purpose of the effort is about maximizing job creation, ensuring a high quality of life for residents in and surrounding the project area, strategic residential and commercial growth, preservation of natural lands and expansion of recreational opportunities, provision of a variety of community and housing types that match workforce needs, and planning for future transportation infrastructure and other investments to enhance mobility and protect the environment. In Phase 1, the key findings include:

1. Transportation is viewed as the biggest challenge.
2. Infrastructure investment decisions should take into account the impact on economic growth.
3. Utahns and transportation experts place high priority on a connected street network.
4. Utahns and employers want greatly expanded public transportation.

Phase 1 has been completed and they are currently in phase 2 which is the scenarios process. On November 14, they will release the alternative scenarios to the commission and the public. The theme for the transportation scenarios will include:

- A. Regional Transportation Plan without Transit
- B. Regional Transportation Plan
- C. Regional Transportation Plan + Additional Road Investments
- D. Regional Transportation Plan + Additional Road and Transit Investments

#### **Other Business**

There was none.

The next meeting of the Regional Growth Committee will be held on Thursday, January 18, 2018 at 9:30 a.m.

*A recording of this meeting may be found on the WFRC website at [www.wfrc.org](http://www.wfrc.org), under Committees, Regional Growth Committee, 2017 meetings.*

**DATE:** January 10, 2018  
**AGENDA ITEM:** 4  
**SUBJECT:** **Information:** Wasatch Choice 2050 Draft Vision  
**PREPARED BY:** Ted Knowlton

At the RGC meeting, staff will preview the draft Wasatch Choice 2050 Vision. This will include an overview of how the draft Vision performs in working to achieve WFRC's adopted regional goals. Feedback on the draft Vision Scenario will be sought at the "Wasatch Choice 2050 and Mayor's Metro Solutions" joint event to be held on January 23<sup>rd</sup>, ten Vision Workshops held throughout the region, and an online public input tool among other forums.

**BACKGROUND:**

In collaboration with member communities and transportation partners, WFRC is developing the Wasatch Choice 2050 Vision (WC2050). WC2050 is the Wasatch Front region's shared vision for coordinated growth, infrastructure, economic development and open space. One element of WC2050 is the 2019-2050 Regional Transportation Plan (RTP) -- the formal long range plan for regional roads, transit, and active transportation.

Wasatch Choice 2050 aims to find solutions that are at the nexus of transportation, land use, and economic development planning: how can plans and strategies within these spheres work together to improve the region as outlined by the 10 WFRC regional goals:

[http://www.wfrc.org/new\\_wfrc/index.php/regional-transportation-plan/future-plan/goals](http://www.wfrc.org/new_wfrc/index.php/regional-transportation-plan/future-plan/goals)

Wasatch Choice 2050 seeks to provide enough geographic detail to be of value to local planning efforts, while also developing the key regional planning products of the 2019-2050 RTP, [http://wfrc.org/new\\_wfrc/index.php/plans/regional-transportation-plan](http://wfrc.org/new_wfrc/index.php/plans/regional-transportation-plan), and the 2018-2023 Comprehensive Economic Development Strategy.

**RECOMMENDATION:**

This item is for information and discussion.

**CONTACT PERSON:**

Ted Knowlton (801) 363-4250 x1201, [ted@wfrc.org](mailto:ted@wfrc.org)

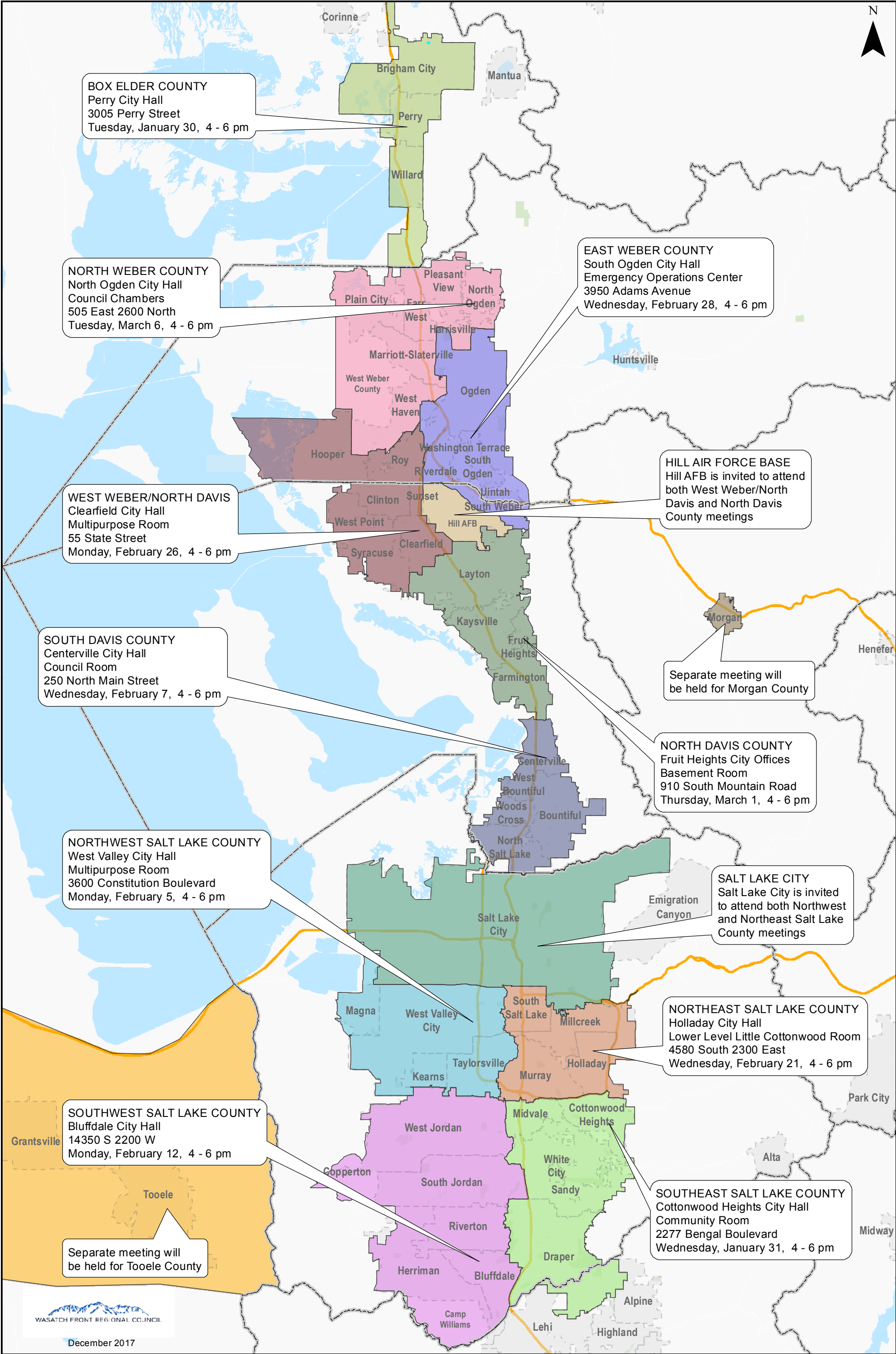
**ATTACHMENTS:**

Vision workshops map and agenda

Wasatch Choice 2050 and Mayor's Metro Solutions Event flier



# Wasatch Choice Vision Workshops







*Mayor's*

# WASATCH CHOICE + METRO SOLUTIONS

2050

A COMBINED EVENT ADDRESSING

## ACCESS TO OPPORTUNITY

### AGENDA

|                    |  |
|--------------------|--|
| 8:30 - 9:00 am     | Registration, Pastries, and Beverages  |
| 9:00 - 10:00 am    | <b>Opening Remarks</b><br>Ben McAdams, Mayor, Salt Lake County<br><b>Upward Mobility</b><br>Reid Ewing, PhD and Ivis Garcia Zambrana, PhD,<br>The University of Utah   |
| 10:00 - 10:15 am   | Break and Networking   |
| 10:15 - 11:40 am   | <b>Wasatch Choice 2050 Vision</b><br>Natalie Gochmour, Director, Kem C. Gardner Policy Institute<br>Andrew Gruber, Executive Director, WFRC<br>Panelists: Mike Caldwell, Mayor, Ogden City; Ted Knowlton, WFRC;<br>Abby Osborne, Salt Lake Chamber |
| 11:40 - 11:50 am   | Break and Networking   |
| 11:50 am - 1:20 pm | <b>Lunch and Keynote Session</b><br>Bruce J. Katz, Centennial Scholar, Brookings Institution<br>Jeremy Nowak, Non-Resident Senior Fellow, Brookings Institution<br>Moderator: Ben McAdams, Mayor, Salt Lake County                                 |
| 1:20 - 1:30 pm     | Break and Networking   |
| 1:30 - 3:00 pm     | <b>Session A: Connecting Livability and Upward Mobility</b><br><b>Session B: Healthy Communities</b><br><b>Session C: Cities and Businesses Growing Economic Strengths</b>   |
|                    | AICP credits are available.  |



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**WASATCH CHOICE + METRO SOLUTIONS**

— 2050 —

A COMBINED EVENT ADDRESSING

# ACCESS TO OPPORTUNITY

## Keynote Speakers

Bruce J. Katz and Jeremy Nowak

Co-authors of *The New Localism: How Cities Can Thrive in the Age of Populism* (release date 2018)

## Presented By



**DATE:** January 10, 2018  
**AGENDA ITEM:** 5  
**SUBJECT:** Transportation Governance and Funding Task Force and Legislative Preview  
**PREPARED BY:** LaNiece Davenport

WFRC staff will preview the legislative session, discuss outcomes of the Transportation Governance and Funding Task Force, and discuss expectations for upcoming legislation related to funding and governance.

**BACKGROUND:**

The [Transportation Governance and Funding Task Force](#), created by [Senate Bill 174](#) during the 2017 State Legislative Session, evaluated best practices for integrating transportation, land use, and economic development in order to enhance overall quality of life. The [16-member](#) Task Force and its respective working groups met several times throughout 2017 with one final meeting expected before their final report is complete. Their latest reports, the [Transportation Governance and Funding Task Force Report](#) and [Potential Reforms to Utah's Transportation Governance and Project Development](#) were presented at their last meeting held on November 27, 2017. The Task Force plans to discuss the proposed governance reforms and potential draft legislation at their final meeting (not yet scheduled).

The 2018 Utah State Legislative Session will start on Monday, January 22nd and end on Thursday, March 8th. Beginning Thursday, January 25<sup>th</sup> at 8:00 am the WFRC will host **informal weekly meetings** for members of the Wasatch Front Regional Council, its committees, and friends. These meetings will be held in the **Aspen Room of the Senate building every Thursday at 8:00 am**. The meetings will provide a forum to discuss policy issues and bills being considered by the Legislature that are of interest to WFRC members. Staff will report on bills related to transportation and related issues such as land use, economic development, and air quality.

**RECOMMENDATION:**

This item is for information only.

**CONTACT PERSON:**

Andrew Gruber (801) 824-0055, [agruber@wfr.org](mailto:agruber@wfr.org) or LaNiece Davenport (801) 363-4250 x1136, [ldavenport@wfr.org](mailto:ldavenport@wfr.org)

**DATE:** January 10, 2018  
**AGENDA ITEM:** 6  
**SUBJECT:** **ACTION:** Recommendation of Adoption of 2015-2040 RTP Amendments Number 5  
**PREPARED BY:** Jory Johner

At the Regional Growth Committee (RGC) meeting, WFRC staff will present the proposed Amendment Number 5 to the current 2015-2040 Regional Transportation Plan (2015-2040 RTP), along with Draft Air Quality Memorandum 37. The action requested is to make a recommendation to the Council on the formal adoption of these modifications and related conformity analysis. This proposed amendment was presented to and discussed at the October 12<sup>th</sup> RGC meeting, and then public comments were solicited from October 20, 2017 to November 20, 2017. One comment was received on Wasatch Boulevard and was responded to by the Utah Department of Transportation (UDOT). WFRC staff and UDOT have also included a project that was considered by RGC in May 2016 and received public comment and further analysis: Redwood Road from 9000 South to 12600 South in this Amendment 5. No other changes have taken place from what RGC reviewed in October.

**BACKGROUND:**

Every four years the Wasatch Front Regional Council (WFRC) prepares and adopts a Regional Transportation Plan. WFRC adopted the current 2015-2040 RTP in May 2015. While the RTP receives considerable review before being formally adopted, the identification of new funding sources, the determination of final environmental impact statements, or the rapid development of certain projects may warrant a change to the RTP. A process for amending the RTP has been reviewed by the RGC and was formally adopted by WFRC. This process was last updated in March 2016.

Amendment 5 includes nine requests from the Utah Transit Authority (UTA), Salt Lake County, Weber County, Cottonwood Heights, Harrisville, Plain City, and UDOT to amend the 2015-2040 RTP. Three of the proposed amendments need to be included in the RTP because of requirements for local Weber County sales tax funding eligibility. The remaining six projects need to be included in Phase 1 or 2 of the 2015-2040 RTP because they are capacity projects. One of the amendments has received partial State funding and could utilize funding from the WFRC-administered Surface Transportation Program (STP) funds, two others are anticipating revenues from Utah State Correctional Facilities funding, and two projects have yet to identify revenue sources.

**PROCESS:**

The WFRC staff has discussed each of the nine amendment requests with their respective sponsors, analyzed the potential financial implications of these proposed amendments and determined that the 2015-2040 RTP is able to maintain its fiscal constraint while accommodating construction of these projects in all Phases. The WFRC staff reviewed the air quality impacts, found in the Draft Air Quality Memorandum 37, to ensure that all applicable air quality conformity requirements are met and results were provided during the comment period.

The Redwood Road widening project from 9000 South to 12600 South, originally proposed in Amendment 2 – May 2016, has been brought back for a recommendation in this amendment package. A request for approval was delayed on the project segment north of 12600 South to allow comments to be reviewed and additional analysis to be considered from three studies. UDOT, UTA, and WFRC along with the local communities have completed the following studies – Redwood Road

Multimodal Study, the Salt Lake County Westside Bicycle Study, and the Redwood Road Travel demand study – with additional information provided in the attachment. UDOT and WFRC asks that the RGC review and consider the recommendations at this time.

The WFRC staff presented these amendments, less the Redwood Road project, to the RGC's Salt Lake County PlanTAC and the Ogden-Layton RGC TAC on September 20, 2017 and to the RGC on October 12, 2017. Presentations were also made to the Weber County Council of Governments (COG) on November 6, 2017. Salt Lake County COG members received the amendment information on November 9, 2017 via an email. The formal public review and comment period took place from October 20, 2017 to November 20, 2017 and one comment was received on Wasatch Boulevard and was responded to by UDOT.

No changes have taken place to the original eight projects from what RGC reviewed in October. The Redwood Road project was presented to the TACs on April 20, 2016, to the RGC on May 12, 2016, with a public comment period from May 23, 2016 to June 24, 2016 and RGC. At the January 18, 2018 Regional Growth Committee meeting, the members will be asked to make a final recommendation to the Wasatch Front Regional Council for the formal adoption of the requested Amendment Number 5 along with the accompanying air quality conformity analysis during their January 23, 2018 meeting.

**RECOMMENDATION:**

The WFRC staff requests that the Regional Growth Committee recommend approval of Amendment Number 5 and the Draft Air Quality Memorandum 37 to the Wasatch Front Regional Council.

Suggested motion language: *I make a motion to recommend that the Wasatch Front Regional Council approve Amendment Number 5 to the 2015-2040 RTP and the air quality conformity determination as found in Draft Air Quality Memorandum 37.*

**CONTACT PERSON:**

Jory Johner (801) 363-4250 x1110, [jjohner@wfr.org](mailto:jjohner@wfr.org)

**ATTACHMENT:**

Amendment Number 5 Project Overviews  
Draft Air Quality Memorandum 37

## **AMENDMENT NUMBER 5 PROJECT OVERVIEWS**

### ***PROJECTS SEEKING WEBER COUNTY SALES TAX FUNDING***

#### **HARRISVILLE CITY**

##### **1. New Construction on 1100 North**

**Cost: \$420,000**

This request is for the new construction of a three-lane facility to connect existing streets located at 140 West and 140 East. If amended into the RTP, this project would provide a link between two arterial streets and help decrease the amount of traffic between existing residential neighborhoods. The new road would also provide access to Highway 89 on the west and Washington Boulevard on the east. This is a Phase 1 project.

#### **PLAIN CITY**

##### **2. Operational Improvements on 3600 West**

**Cost: \$3.5 Million**

This amendment request is for operational improvements to 3600 West from 2600 North to 1975 North. Improvements would provide added shoulders, a consistent cross-section with the existing roadway, safety improvements, improved access for adjoining properties, and a center turn lane at intersections. This is a Phase 1 project.

#### **WEBER COUNTY**

##### **3. New Construction on Depot Drive**

**Cost: \$1.6 Million**

This amendment request is for the new construction of Depot Drive from 12<sup>th</sup> Street to the Weber County Sheriff's Complex and Jail. This road will also provide a direct connection to the Weber Area Juvenile Justice Multi-Use Facility, which is currently under construction by the Utah Department of Facility and Construction Management. The project will redesign the intersection of 12<sup>th</sup> Street (SR-39) and Depot Road and will include a deceleration lane. This is a Phase 1 project.

### ***PROJECT FUNDING SOURCES HAVE NOT BEEN IDENTIFIED***

#### **UTAH TRANSIT AUTHORITY**

##### **4. 5600 West Transit Line**

**Cost: \$22.6 Million – Roadside Improvements**

**\$11.9 Million – Buses**

**\$ 6.7 Million – Operating Costs**

A recent environmental assessment, sponsored by UDOT and UTA, made specific recommendations that require an update to the existing 2015-2040 RTP. This request is to replace the Phase 1 Bus Rapid Transit on 5600 West, from 6200 South to 2700 South, with a Phase 1 Express Bus / Core Route. This service would start at the Old Bingham Highway Light Rail Station to the Salt Lake International Center, then to the Salt Lake International Airport, and finally to downtown Salt Lake City. Costs have been provided for needed roadside improvements, buses, and operating costs. This is a Phase 1 project.

#### **SALT LAKE COUNTY**

##### **5. New Construction on 7200 West**

**Cost: ~\$100 Million**

This amendment request is for the new construction of 7200 West from 700 North to State Route 201. The project is a three-lane facility with preservation of right-of-way for an eventual five-lane roadway. The extension of 7200 West to the north will provide



access to the new Utah State Correctional Facility and the Northwest Quadrant. To date, a funding source has not been identified. This is a Phase 2 project.

### ***UTAH STATE CORRECTIONAL FACILITY FUNDING***

#### **SALT LAKE COUNTY**

##### **6. New Construction on 8000 West**

**Cost: \$15 Million**

This amendment request is for the new construction of 8000 West from 1400 North to the northern frontage road of I-80. The project is a three-lane facility that would provide access to the new Utah State Correctional Facility. This is a Phase 1 project.

#### **SALT LAKE COUNTY**

##### **7. New Construction on 700 North, 7200 West, and 1400 North**

**Cost: \$15 Million**

This amendment request is for the following new three-lane facilities to provide access to the new Utah State Correctional Facility:

- 700 North from 5600 West to 7200 West
- 7200 West from 700 North to 1400 North
- 1400 North from 7200 West to 8000 West

These three improvements are all Phase 1 projects.

### ***PROJECTS PARTIALLY FUNDED and SEEKING SURFACE TRANSPORTATION PROGRAM (STP) FUNDING***

#### **CITY OF COTTONWOOD HEIGHTS**

##### **8. Widening of Wasatch Boulevard**

**Cost: \$24 Million**

This amendment request is for the widening of Wasatch Boulevard from two to four lanes between Bengal Boulevard to 9600 South. This improvement would allow for more efficient traffic circulation, especially between the mouths of Big and Little Cottonwood Canyons. The project would also help increase access to both the existing Knudsen Corners development and the proposed commercial and residential development planned at the gravel pit. The request is for this project to be moved from Phase 2 to Phase 1. Revenue for the northbound lanes has been secured with state funds with addition revenue potentially coming from STP funding.

#### **UTAH DEPARTMENT OF TRANSPORTATION**

##### **9. Widening on Redwood Road From 9000 South to 12600 South**

**Cost: \$2.3 Million**

This request is for moving a widening project from 5 to 7 lanes from Phase 3 to Phase 1 between 9000 South and 12600 South. There is a funded Phase 1 widening project from 3 to 7 lanes between 12600 South and Bangerter Highway with right-of-way being purchased and pavement being constructed to accommodate a 7 lane cross-section at a cost of approximately \$38 million. The additional lanes from 9000 South to 12600 South would be added not through additional pavement, but through restriping, at an additional cost of \$2.3 million which has been secured by UDOT. The total project cost is estimated to be \$41 million.

The originally proposed widening of Redwood Road may have required removal of bike lanes on Redwood Road between South Jordan Parkway and 12600 South. Comments were received from the public that opposed the removal of bicycle lanes on Redwood Road. To enable additional analysis, no action was taken in May 2016 on the project segment from



9000 South to 12600 South. This allowed more time to address the comments received and for a review and evaluation of specific recommendations from three different studies encompassing this section of Redwood Road. Over the last year and a half UDOT, UTA, and WFRC have worked together with local communities on the following studies: the Redwood Road Multimodal Study, the Salt Lake County Westside Bicycle Study, and the Redwood Road Travel Demand Study. Recommendations from these studies are summarized below and recommend moving the Redwood Road project from Phase 3 to Phase 1, recommends near term bicycle improvements on 1300 West, supports a future vision separated bicycle facility on Redwood Road, and will not impact future planned transit projects. UDOT Region 2 and UDOT Planning staff have met with West Jordan, Riverton and South Jordan staff to ask about city support of the project. All cities have indicated that they support the studies outcomes and recommendations for the proposed active transportation solutions.

#### Salt Lake County Westside Bicycle Study

This study was funded through UDOT Region 2 and included engagement with local jurisdictions, the cycling community, and the general public. The public and cyclists find that it feels unsafe to ride along Redwood Road with high speed traffic. Their preference is to have “Low Stress” facilities to ride bikes for commuting and general health. As a result of this finding, other roads were explored within the area. The recommendation from the study is that the bike facility be moved from Redwood Road to 1300 West. UDOT Region 2 is planning to spend over \$1 Million dollars of Transportation Alternative Program (TAP) monies to make this “Low Stress” biking facility a reality on 1300 west.

#### Redwood Road Travel Demand Study

According to a recently completed Traffic Analysis that looked at Redwood Road and included the travel benefits from the improvements to Bangerter Highway and I-15 improvements, the conclusion is that travel demand will continue to increase for Redwood Road. The study projected failure of major intersections beginning in 2019 without the improvements to Redwood Road.

#### Redwood Road Multimodal Transportation Study

This study did not recommend nor preclude the future widening of Redwood Road for automobile travel. According to UTA there is not a need to have an exclusive transit travel lane on Redwood Road. The transit recommendation is to identify Redwood Road as a “Core Route” which included improvements to transit stations, and other low cost capital projects. Core Routes are focused on improving service levels and making a commitment to a level of service. Recent research by the University of Utah makes it clear that increasing frequency is very beneficial to increasing ridership. This study has a recommendation for creating a multi-use path along Redwood Road. UDOT does not believe this widening precludes any future actions from taking place. However, those future actions would need to be carefully analyzed and coordinated with the local communities.

# Air Quality Memorandum

**REPORT NO.** 37 - DRAFT

**DATE** October 10, 2017

**SUBJECT** CONFORMITY ANALYSIS FOR AMENDMENT #5 OF THE WFRC 2015-2040 REGIONAL TRANSPORTATION PLAN.

**ABSTRACT** The FAST Act and the Clean Air Act Amendments (CAAA) require that all regionally significant highway and transit projects in air quality non-attainment and maintenance areas be derived from a “conforming” Regional Transportation Plan and Transportation Improvement Program. 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 within guidelines established by the Environmental Protection Agency (EPA) until such time that a SIP is approved. This conformity analysis is made by the Wasatch Front Regional Council (WFRC), as the Metropolitan Planning Organization for the Salt Lake- West Valley and Ogden-Layton Urbanized Areas, and submitted to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) for their concurrence. This conformity analysis is being prepared according to the transportation conformity rulemakings promulgated by the EPA as of March 2010 and according to FHWA final rulemakings found in the FAST legislation. The EPA approved MOVES model for estimating vehicle emissions was used for this conformity analysis.

This conformity analysis addresses the emissions impact of the November 2017 amendments to 2015-2040 RTP which are described in detail in Appendix 4. The projected vehicle activity is based on Version 8.1 of the WFRC travel demand model and the 2012 Household Travel Survey of trip making activity. For a detailed description of projects included in the 2040 RTP, see [http://www.wfrc.org/new\\_wfrc/index.php/projects/project-lists](http://www.wfrc.org/new_wfrc/index.php/projects/project-lists) and select the link for “Highway Projects List” or “Transit Projects List”. Refer to Appendices 2 and 3 of this document for projects in Box Elder and Tooele Counties.

**Wasatch Front Regional Council**

295 North Jimmy Doolittle Road  
Salt Lake City, Utah 84116

Based on the analysis presented in this document, the amended WFRC 2015-2040 RTP conforms to the State Implementation Plan or the Environmental Protection Agency interim conformity guidelines for all pollutants in applicable non-attainment or maintenance areas. Therefore, all transportation projects in Box Elder, Weber, Davis, Salt Lake, and Tooele Counties included in the amended 2015-2040 RTP are found to conform.

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## A. Conformity Requirements

### Conformity Process

Since the commencement of the federal transportation planning requirements in the late 1960s, further requirements (most recently the 2015 Fixing America's Surface Transportation Act (FAST) 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 Wasatch Front Regional Council (WFRC) is the Metropolitan Planning Organization for the Salt Lake/West Valley and Ogden / Layton Urbanized Areas. This report summarizes WFRC's conformity analysis of the 2015-2040 RTP with the Division of Air Quality's State Implementation Plan (SIP) and the Environmental Protection Agency's interim conformity guidelines. This conformity analysis is subject to public and agency review, and requires the concurrence of the Federal Highway Administration and Federal Transit Administration.

In November, 1993, the Environmental Protection Agency and the U.S. Department of Transportation issued rules establishing the procedures to be used to show that transportation plans and programs conform to the SIP. The conformity rules establish that federal funds may not be used for transportation projects that add capacity 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 the projects conform to the SIP. This restriction also applies to "regionally significant" transportation projects sponsored by recipients of federal funds even if the regionally significant transportation project uses local funds exclusively.

Davis and Salt Lake Counties, Salt Lake City, Ogden City and portions of Weber, Box Elder and Tooele Counties are designated as non-attainment (or maintenance) for one or more air pollutants. Specifically, there are four areas in the Wasatch Front region for which the conformity rules apply. These areas are listed in Table 1 below.

**Table 1**  
**Wasatch Front Region Non-attainment Designations**

| Area   | Designation                  | Pollutant                               |
|--|------------------------------|---|
| Salt Lake City   | Maintenance Area             | Carbon Monoxide (CO)                    |
| Ogden City   | Maintenance Area             | Carbon Monoxide (CO)                    |
|  | Moderate Non-Attainment Area | Particulate Matter (PM <sub>10</sub> )  |
| Salt Lake County   | Moderate Non-Attainment Area | Particulate Matter (PM <sub>10</sub> )  |
| Salt Lake<br>(including Davis, Salt Lake,<br>and portions of Weber, Box<br>Elder, and Tooele Counties) | Serious Non-Attainment Area  | Particulate Matter (PM <sub>2.5</sub> ) |

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

- Latest planning assumptions
- Transportation Control Measures (TCM)
- Emissions budget
- Project from a conforming plan and TIP
- PM<sub>10</sub> control measures
- Latest emissions model
- Consultation
- Currently conforming plan and TIP
- CO and PM<sub>10</sub> “hot spots”

Each of these requirements will be discussed in the following paragraphs.

### **Latest Planning Assumptions**

Current travel models are based on socioeconomic data and forecasts from local building permits, the Utah Division of Workforce Services, and the Governor’s Office of Management and Budget (GOMB). Base year socioeconomic data are for calendar year 2011. Forecasts of population and employment by traffic analysis zone were developed by WFRC in 2013 and are controlled to county-level forecasts published by GOMB in October, 2012.

### **Latest Emissions Model**

The conformity analysis presented in this document is based on EPA mobile source emissions models: MOVES2014a for tailpipe emissions and AP-42 section 13.2.1 for paved road dust emissions. The application of these models will be discussed in greater detail in the Emissions Model section of this document.

### **Consultation Process**

Section 105 of 40 CFR Part 93 (Conformity Rule) requires, among other things, interagency consultation in the development of conformity determinations. To satisfy this requirement, the State Division of Air Quality (DAQ) prepared a Conformity SIP to outline the consultation procedures to be used in air quality and transportation planning. The Conformity SIP also defines the membership of the Interagency Consultation Team (ICT) as representatives from DAQ, WFRC, Mountainland Association of Governments, Utah Department of Transportation, Utah Transit Authority, EPA, FHWA, and the FTA. The Conformity SIP has been approved by EPA. WFRC followed the consultation procedures as outlined in the Conformity SIP in the preparation of this conformity analysis. As part of the public involvement procedures referenced in the Conformity SIP, WFRC presented this report to the Regional Growth Committee for review and comment. The TransCom committee includes a member of the Utah Air Quality Board as well as representatives of UDOT, UTA, and FHWA. Management level staff members from the Utah Division of Air Quality are notified of meetings and agendas of the above committees. The Utah Division of Air Quality and other members of the ICT were also provided with a copy of this report during the public comment period for the 2015-2040 RTP.

This Conformity Analysis for the 2015-2040 RTP was made available for public inspection and comment for a 30-day period in accordance with EPA conformity regulations. This analysis was also posted on the WFRC website during the comment period. Notification of the comment period was sent by electronic mail to interested stakeholders. In addition, public comment was taken during various committee meetings of the Wasatch Front Regional Council.



### **TCM Implementation**

A conformity analysis for the 2015-2040 RTP must certify that the RTP does not interfere with the implementation of any Transportation Control Measure (TCM) identified in the applicable State Implementation Plan (SIP). There is one TCM from the original SIP section for the 1-hour ozone standard which has been carried forward to the current ozone maintenance plan, even though the 1-hour ozone standard has been revoked. This TCM, the employer-based trip reduction program, applies to local, state, and federal government employers. The program emphasizes measures to reduce the drive-alone rate such as subsidized bus passes, carpooling, telecommuting, and flexible work schedules. UTA has in place the ECO pass discount for a number of large employers including the University of Utah and Weber State University. Ridesharing, telecommuting, and flexible work schedules are programs currently managed, promoted, or operated by UTA Rideshare and the UDOT Travelwise program. Congestion Mitigation and Air Quality (CMAQ) funds and other transportation funds are used to support these ongoing programs.

### **Emissions Budget**

A comparison of mobile source emission estimates to emission budgets defined in the SIP is outlined in this document in Section D - Conformity Determination.

### **Currently Conforming Plan and TIP**

The existing 2040 RTP for the Wasatch Front Area conforms to State air quality goals and objectives as noted in a letter from FHWA and FTA dated September 11, 2017. The existing 2018-2023 TIP for the Wasatch Front Area was also found to conform and this was noted in a letter from FHWA and FTA also dated September 11, 2017.

### **Projects from a Conforming Plan and TIP**

**TIP Time Frame** - All projects which must be started no later than 2023 in order to achieve the transportation system envisioned by the 2015-2040 RTP are included in the 2018-2023 TIP. The TIP is fiscally constrained, meaning that only those projects with an identified source of funds are included in the TIP. Estimated funding availability is based on current funding levels and reasonable assumptions that these funds will continue to be available. Conformity for the 2018-2023 TIP is addressed separately in Air Quality Memorandum 36a.

### **Regionally Significant**

All regionally significant projects, regardless of funding source (federal, state, or local) are included in the RTP. All regionally significant projects are also included in the regional emissions analysis of the RTP. Regionally significant projects are identified as those projects functionally classified as a principal arterial or higher order facility, and certain minor arterials as identified through the interagency consultation process (see Appendix 1 for a complete definition of regionally significant projects). The latest Utah Department of Transportation Functional Classification map is used to identify functional classification. Interstate highways, freeways, expressways, principal arterials, certain minor 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 also be reflected in the analysis. 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 RTP. In order to improve the quality of the travel model, 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. For a list of projects included in this conformity analysis, see [http://www.wfrc.org/new\\_wfrc/index.php/projects/project-lists](http://www.wfrc.org/new_wfrc/index.php/projects/project-lists) and select the link for “Highway Projects List” or “Transit Projects List”. Refer to Appendices 2 and 3 of this document for projects in Box Elder and Tooele Counties.

### **CO, PM<sub>10</sub> and PM<sub>2.5</sub> “Hot Spot” Analysis**

In addition to the regional emissions conformity analysis presented in this document, specific projects within carbon monoxide (CO) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) non-attainment areas are required to prepare a “hot spot” analysis of emissions. The “hot spot” analysis serves to verify whether localized emissions from a specific project will meet air quality standards. This requirement is addressed during the NEPA phase of project development before FHWA or FTA can issue final project approval.

FHWA has issued guidance on quantitative PM<sub>10</sub> and PM<sub>2.5</sub> “hot spot” analysis to be used for the NEPA process. This guidance can be found at:

<http://www.epa.gov/otaq/stateresources/transconf/projectlevel-hotspot.htm>.

### **PM<sub>10</sub> Control Measures**

**Construction-related Fugitive Dust** - Construction-related dust is not identified in the Utah SIP as a contributor to the PM<sub>10</sub> non-attainment area. Therefore, there is no conformity requirement for construction dust. Section 93.122(d) (1) of 40 CFR reads as follows:

“For areas in which the implementation plan does not identify construction-related fugitive PM<sub>10</sub> as a contributor to the non-attainment problem, the fugitive PM<sub>10</sub> emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.”

In the Utah PM<sub>10</sub> SIP, construction-related PM<sub>10</sub> is not included in the inventory, nor is it included in the attainment demonstration or control strategies. Control of construction-related PM<sub>10</sub> emissions are mentioned in qualitative terms in Section IX.A.7 of the SIP as a maintenance measure to preserve attainment of the PM<sub>10</sub> standard achieved by application of the control strategies identified in the SIP. Section IX.A.7.d of the SIP requires UDOT and local planning agencies to cooperate and review all proposed construction projects for impacts on the PM<sub>10</sub> standard. This SIP requirement is satisfied through the Utah State Air Quality Rules. R307-309-4 requires that sponsors of any construction activity file a dust control plan with the State Division of Air Quality.

### **Other Conformity Requirements**

**Transit Fares** - Transit fares have increased periodically and will continue to increase in response to rising operating costs. The RTP assumes that transit fare revenues will cover a constant percentage of all transit operating cost, so future fare increases are consistent with the Plan. With any price increase some market reaction is expected. While there have been some short term fluctuations in transit patronage in response to fare increases, the implementation of light rail service and other transit improvements has retained and increased transit patronage consistent with the levels anticipated by the RTP.

Plans to expand light rail service, to increase and enhance bus service, and to extend commuter rail operations are moving forward. These transit projects are envisioned in the Plan and the steps necessary to implement these projects are moving forward including various voter approved sales tax increases for transit funding.

## **B. Transportation Modeling**

Improvement to the WFRC travel demand model practice and procedure is an ongoing process. This conformity analysis is based on the latest version (8.1) of the travel demand model. Version 8.1 of the travel demand model updates the former 2007 base year with socio-economic data and transportation networks for the new 2011 base year. The new model also incorporates the results of the 2012 Household Travel Survey conducted by WFRC. Version 8.1 of the model adds more traffic analysis zones, and the transit mode choice portion of the model has been enhanced. Details of Version 8.1 of the travel model are documented in a report titled “WFRC/MAG Version 8.1 Travel Demand Model Documentation” which is available upon request.

### **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 and transportation planning agencies. The planning process is certified annually by the Regional Council and reported to the Federal Highway Administration and Federal Transit Administration. Every four years FHWA and FTA conduct a comprehensive certification review. The certification review of August 2013 found that the WFRC planning process meets federal requirements. Recommendations were made to improve WFRC’s planning process and these are being addressed.

The documentation of the planning process includes at a minimum, a twenty-year Regional Transportation Plan updated at least every four years; and a four-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 WFRC travel model is used to estimate and forecast highway Vehicle Miles Traveled (VMT) and vehicle speeds for Weber, Davis, and Salt Lake Counties. A separate travel model is used to estimate VMT and speed in Tooele County. For VMT and speed estimates in Box Elder County, WFRC relied on forecasts provided by the Utah Department of Transportation. The WFRC 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 base data for the travel demand model is reviewed regularly for accuracy and updates. The travel model files used for this conformity analysis are available upon request.

Shown below in Table 2 is a summary of weekday VMT for the cities and counties in designated non-attainment areas. Totals for VMT are given for various air quality analysis years from 2019 to 2040. Note that the VMT values for Box Elder and Tooele Counties are not for the entire county but only that portion of the county designated as non-attainment for a criteria pollutant.

**Table 2**

**Vehicle Miles Traveled (HPMS Adjusted Average Winter Weekday)**

|                          | <b>2019</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
|--------------------------|-------------|-------------|-------------|-------------|
| <b>Salt Lake City</b>    | 6,958,685   | 7,406,200   | 8,301,230   | 8,732,972   |
| <b>Ogden City</b>        | 1,524,886   | 1,645,496   | 1,838,034   | 1,955,595   |
| <b>Salt Lake County</b>  | 31,323,413  | 33,380,866  | 38,670,273  | 41,666,107  |
| <b>Davis County</b>      | 8,109,488   | 8,841,503   | 9,872,390   | 10,401,947  |
| <b>Weber County</b>      | 5,459,687   | 5,760,571   | 6,775,625   | 7,274,467   |
| <b>Box Elder County*</b> | 2,582,199   | 2,846,983   | 3,378,619   | 3,738,885   |
| <b>Tooele County*</b>    | 2,336,172   | 2,621,722   | 3,379,647   | 4,158,310   |

*\*non-attainment portion of the county*

### Peak and Off-Peak Trip Distribution

The modeled VMT and the modeled vehicle speed depend on the number of vehicle trips assigned for each time period (AM, midday, PM, and evening) defined in the travel demand model. The percentage of trips by purpose varies for each time period. The percentages in Table 3 and Table 4 below are based on data from the 2012 Household Travel Survey.

**Table 3**  
**Percent of Trips by Time of Day**

| <b>Trip Purpose</b>            | <b>AM</b>  | <b>Mid Day</b> | <b>PM</b>  | <b>Evening</b> | <b>Grand Total</b> |
|--------------------------------|------------|----------------|------------|----------------|--------------------|
| Home Based - Other             | 11%        | 27%            | 24%        | 37%            | 100%               |
| Home Based - Personal Business | 9%         | 50%            | 25%        | 16%            | 100%               |
| Home Based - School            | 40%        | 29%            | 26%        | 5%             | 100%               |
| Home Based - Shopping          | 2%         | 43%            | 26%        | 29%            | 100%               |
| Home Based - Work              | 35%        | 18%            | 28%        | 19%            | 100%               |
| Non-home Based - Non-work      | 6%         | 46%            | 25%        | 23%            | 100%               |
| Non-home Based - Work          | 13%        | 49%            | 29%        | 9%             | 100%               |
| <b>Grand Total</b>             | <b>15%</b> | <b>34%</b>     | <b>26%</b> | <b>25%</b>     | <b>100%</b>        |

**Table 4**  
**Percent of Trips by Purpose**

| <b>Trip Purpose</b>            | <b>AM</b>   | <b>Mid Day</b> | <b>PM</b>   | <b>Evening</b> | <b>Grand Total</b> |
|--------------------------------|-------------|----------------|-------------|----------------|--------------------|
| Home Based - Other             | 25%         | 26%            | 31%         | 50%            | 33%                |
| Home Based - Personal Business | 3%          | 8%             | 5%          | 4%             | 5%                 |
| Home Based - School            | 19%         | 6%             | 7%          | 1%             | 7%                 |
| Home Based - Shopping          | 1%          | 13%            | 10%         | 12%            | 10%                |
| Home Based - Work              | 37%         | 8%             | 17%         | 12%            | 16%                |
| Non-home Based - Non-work      | 7%          | 25%            | 18%         | 18%            | 19%                |
| Non-home Based - Work          | 8%          | 13%            | 11%         | 3%             | 9%                 |
| <b>Grand Total</b>             | <b>100%</b> | <b>100%</b>    | <b>100%</b> | <b>100%</b>    | <b>100%</b>        |

### **Comparison of Modeled Speeds with Observed Data**

WFRC continues to adjust modeled speeds to improve consistency with samples of observed speeds. Observed speed data were collected in 2013 through a FHWA program known as “Here Data” that uses cell phone signals to track vehicle movements. The observed speeds for freeways and arterials during AM and PM periods of congestion were compared to speeds estimated using the WFRC travel demand model for the 2011 base year. A review of median speeds for the three-county WFRC model area is shown in Table 5. WFRC area modeled speeds are within -3.2% to 3.1% of observed Here Data speeds.

**Table 5**  
**WFRC Planning Area Modeled Speeds Compared to Observed Speeds**

|                                   | <b>Arterial</b> |               | <b>Freeway</b> |               |
|-----------------------------------|-----------------|---------------|----------------|---------------|
|                                   | AM<br>Peak      | PM<br>Peak    | AM<br>Peak     | PM<br>Peak    |
| <b>2011 Modeled Speeds (mph)</b>  | 33              | 30            | 66             | 63            |
| <b>2013 Observed Speeds (mph)</b> | 32              | 31            | 64             | 64            |
| <b>Percent Difference</b>         | <b>3.1 %</b>    | <b>-3.2 %</b> | <b>3.1 %</b>   | <b>-1.6 %</b> |

## C. Emission Modeling

### I/M Programs

Assumptions for the input files for EPA's MOVES vehicle emissions model include I/M programs in Salt Lake, Davis, and Weber Counties. Box Elder and Tooele Counties do not presently have I/M programs.

### VMT Mix

The VMT mix describes how much a particular vehicle type is used in the transportation network. While no longer a required input for the MOVES model as it was for MOBILE6.2, VMT mix is used in several instances to generate the input files required to run the MOVES model. The national default VMT mix found in the MOVES database was used to disaggregate local vehicle type data collected in 2014. The local vehicle type data is collected by UDOT as part of the federal HPMS data collection system and is based on automated counters which classify vehicles based on vehicle length. The UDOT classification is used to calculate control percentages for light duty (LD) vehicles and heavy duty (HD) vehicles for each facility type. The EPA default VMT mix is then applied to disaggregate the two UDOT control percentages into detailed percentages for the thirteen vehicle classes used in MOVES.

### Vehicle Weights

Facility specific VMT mix data described above was also used to estimate the average vehicle weight on each facility type. Since vehicle weight affects the rate of re-entrained road dust emissions estimated using the AP-42 method, vehicle weight variations on different facilities will affect the amount of fugitive dust created. The VMT mix for each facility type was used to estimate an average vehicle weight for each facility type with the following results:

| <u><b>Facility</b></u> | <u><b>Average Vehicle Weight</b></u> |
|------------------------|--------------------------------------|
| Urban - Freeway        | 6,500 lbs, or 3.25 tons              |
| Urban - Arterial       | 6,100 lbs, or 3.05 tons              |
| Urban - Local          | 3,900 lbs, or 1.95 tons              |

## **Post Model Adjustments**

For conformity analyses prior to 2000, the WFRC applied post model adjustments to vehicle emission estimates. Emission credits for work trips were modeled for reductions in single occupant vehicle rates based primarily on increased investments in transit service and rideshare programs, and the projected increase in telecommuting. Other less significant post model adjustments were also estimated for incident management, pavement re-striping, and signal coordination. Additional emission reducing programs and projects supported by CMAQ funds such as park and ride lots, bicycle facilities, transit vehicles, intelligent transportation systems (ITS), and intersection improvements have also been implemented.

WFRC believes that these programs have a positive effect in reducing vehicle emissions. In practice, however, WFRC has found that documenting the air quality benefits of these programs can be challenging. WFRC will continue to support these emission reduction programs, but credits from these programs have not been included in this conformity analysis.

## **MOVES Inputs**

The MOVES model is a very data intensive computer program based on the MySQL database software. Through the interagency consultation process the required MOVES inputs reflecting local conditions have been established.

Data files defining local conditions by county and year are required inputs to the MOVES model including vehicle population, emission testing programs, fuel supply, fuel formulation, meteorological conditions, and vehicle age. Vehicle population estimates are based on 2014 registration data by county and the estimated VMT for the same year. This vehicle population to VMT ratio is then applied to model projections of VMT to estimate future year vehicle population. By estimating vehicle population in this way the calculation considers the effects of human population and employment projections, as well as mode choice options that are included in the travel demand model.

Vehicle activity input files for the MOVES model are generated by the WFRC travel demand model using a customized in-house program for this purpose. The MOVES input files required include data for ramp fractions, road distribution, speed distribution, and VMT by vehicle type for each county (Box Elder, Davis, Salt Lake, Tooele, and Weber) and analysis year (PM<sub>2.5</sub> base year for interim conformity 2008, 2019, 2024, 2034, and 2040) as required for operating the MOVES model.

The input files listed above are read into the MOVES program as database files. The input database folders in Table 6 below contain the database files used for each county and year modeled using MOVES2014a for this conformity analysis. The results of the MOVES model are stored in the output database “Conf17\_out” for each county and analysis year identified in Table 6.



**Table 6**  
**MOVES Data – Input Database Folders**

| <b>Box Elder</b>   | <b>Weber</b>         | <b>Davis</b>        | <b>Salt Lake</b>    | <b>Tooele</b>       | <b>Salt Lake City</b> | <b>Ogden</b>        |
|--------------------|----------------------|---------------------|---------------------|---------------------|-----------------------|---------------------|
| conf17_be_2008w_IN | conf17_we_2008w_IN   | conf17_da_2008w_IN  | conf17_sl_2008w_IN  | conf17_to_2008w_IN  |                       |                     |
| conf17_be_2019w_IN | conf17_we_2019w_IN   | conf17_da_2019w_IN  | conf17_sl_2019w_IN  | conf17_to_2019w_IN  | conf17_sc_2019w_IN    | conf17_og_2019w_IN  |
| Conf17_be_2024w_IN | Conf17a_we_2024wa_IN | Conf17a_da_2024w_IN | Conf17a_sl_2024w_IN | Conf17a_to_2024w_IN | Conf17a_sc_2024w_IN   | Conf17a_og_2024w_IN |
| Conf17_be_2034w_IN | Conf17a_we_2034w_IN  | Conf17a_da_2034w_IN | Conf17a_sl_2034w_IN | Conf17a_to_2034w_IN | Conf17a_sc_2034w_IN   | Conf17a_og_2034w_IN |
| Conf17_be_2040w_IN | Conf17a_we_2040w_IN  | Conf17a_da_2040w_IN | Conf17a_sl_2040w_IN | Conf17a_to_2040w_IN | Conf17a_sc_2040w_IN   | Conf17a_og_2040w_IN |

## Road Dust Estimates

In January 2011, the EPA released new guidance for estimating dust emissions from paved roads. These guidelines are published in Chapter 13.2.1 of the AP-42 document. The new formula is

$$E = k (sL)^{0.91} \times (W)^{1.02}$$

where:  $E$  = particulate emission factor (grams/mile),  
 $k$  = particle size multiplier for particle size range and units of interest (for  $PM_{10}$ ,  $k=1.0$  and for  $PM_{2.5}$   $k=0.25$ ),  
 $sL$  = road surface silt loading (grams per square meter -  $g/m^2$ ), and  
 $W$  = average weight (tons) of the vehicles traveling the road.

Based on vehicle type counts on roads in the WFRC region, average vehicle weights for local roads, arterials, and freeways are 1.95, 3.05, and 3.25 tons respectively. The silt load ( $sL$ ) factor varies by highway functional class and by traffic volume. The default silt load factors found in Table 13.2.1-2 of the AP-42 document are summarized below.

| <b>Traffic Volume</b> | <b>Functional Class</b> | <b>Silt Load (grams/meter<sup>2</sup>)</b> |
|-----------------------|-------------------------|--|
| 500-5,000             | local roads             | 0.200                                      |
| 5,000-10,000          | arterial roads          | 0.060                                      |
| limited access        | freeways                | 0.015                                      |

A precipitation reduction factor is also applied to the above equation using the following expression:

$$(1 - P/4N)$$

Where:  $P$  = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period, and  
 $N$  = number of days in the averaging period (e.g., 365 for annual, 91 for seasonal, 30 for monthly).

The AP-42 guidance recommends a value of 90 precipitation days per year for the Wasatch Front region. Using these values, the precipitation reduction factor yields a value of 0.9384. Combined with the basic road dust emission rate, the net  $PM_{2.5}$  and  $PM_{10}$  road dust factors by highway functional class are as follows:

| <b>Functional Class</b> | <b><math>PM_{10}</math> Road<br/>Dust Rate<br/>(grams/mile)</b> | <b><math>PM_{2.5}</math> Road<br/>Dust Rate<br/>(grams/mile)</b> |
|-------------------------|---|--|
| local roads             | 0.429   | 0.107  |
| arterials               | 0.226   | 0.057  |
| freeways                | 0.068   | 0.017  |

## D. Conformity Determination

The following conformity findings for the 2015-2040 Regional Transportation Plan for the Wasatch Front are based on the transportation systems and planning assumptions described in this report and the EPA approved vehicle emissions model (MOVES2014).

### Salt Lake City CO Conformity

The carbon monoxide maintenance plan for Salt Lake City was approved by EPA effective September 30, 2005 as recorded in the Federal Register (Vol. 70, No. 146, August 1, 2005). The maintenance plan defines a motor vehicle emission budget for the years 2005 and 2019 of 278.62 tons/day. Table 7 below demonstrates that projected mobile source emissions are within the emission budget defined in the maintenance plan for the 2019 budget year. The other years listed in Table 7 are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the table.

From this demonstration it is concluded that the Amended RTP conforms to the applicable controls and goals of the State Implementation Plan (Maintenance Plan) for Carbon Monoxide in Salt Lake City.

**Table 7**

### Salt Lake City - CO Conformity Determination

|   | <i>b</i>    | <i>b</i>    | <i>c</i>    | <i>c</i>    |
|---|-------------|-------------|-------------|-------------|
| <b>Year</b>                                     | <b>2019</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
| <b>Budget<sup>#</sup> (tons/day)</b>            | 278.62      | 278.62      | 278.62      | 278.62      |
| <i>emission rate (grams/mile)</i>               | 5.30        | 4.86        | 2.19        | 1.76        |
| <i>seasonal VMT</i>                             | 6,958,685   | 7,406,200   | 8,301,230   | 8,732,972   |
| <b>Projection* (tons/day)</b>                   | 40.67       | 39.70       | 20.05       | 16.97       |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> |

*a* - attainment year, *b* - budget year, *c* - 10-year rule, *d* - no budget 5-year rule, *e* - last year of Plan,

<sup>#</sup> Federal Register Vol. 70 No. 146, August 1, 2005, Table V-2.

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

### Ogden CO Conformity

The carbon monoxide maintenance plan for Ogden City was approved by EPA effective November 14, 2005 as recorded in the Federal Register (Vol. 70, No. 177, September 14, 2005). The maintenance plan defines a motor vehicle emission budget for the years 2005 and 2021 of 75.36 and 73.02 tons/day respectively. Table 8 below demonstrates that projected mobile source emissions are within the emission budget defined in the maintenance plan for the 2021 budget year. The other years listed in Table 8 are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the table.

From this demonstration it is concluded that the 2015-2040 RTP conforms to the applicable controls and goals of the State Implementation Plan (Maintenance Plan) for Carbon Monoxide in Ogden City.

**Table 8**  
**Ogden City - CO**  
**Conformity Determination**

|   | <i>c</i>    | <i>b</i>    | <i>c</i>    | <i>c</i>    | <i>e</i>    |
|---|-------------|-------------|-------------|-------------|-------------|
| <b>Year</b>                                     | <b>2019</b> | <b>2021</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
| <b>Budget<sup>#</sup> (tons/day)</b>            | 75.36       | 73.02       | 73.02       | 73.02       | 73.02       |
| <i>emission rate (grams/mile)</i>               | 6.01        | 5.40        | 4.55        | 2.43        | 1.88        |
| <i>seasonal VMT</i>                             | 1,524,886   | 1,573,130   | 1,645,496   | 1,838,034   | 1,955,595   |
| <b>Projection* (tons/day)</b>                   | 10.10       | 9.36        | 8.25        | 4.92        | 4.06        |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> |

*a* - attainment year, *b* - budget year, *c* - 10-year rule, *d* - no budget 5-year rule, *e* - last year of Plan,

<sup>#</sup> Federal Register Vol. 70 No. 177, September 14, 2005, Table V-2.

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

### Ogden PM10 Conformity

Ogden City was designated as a PM<sub>10</sub> non-attainment area in August of 1995 based on PM<sub>10</sub> violations in 1993 or earlier. Since a PM<sub>10</sub> SIP for Ogden has not yet been approved by EPA, it must be demonstrated that Ogden PM<sub>10</sub> emissions are either less than 1990 emissions or less than “no-build” emissions. The analysis years 2019, 2024, 2034, and 2040 were selected in accordance with the requirements of 40 CFR Section 93.119(e).

PM<sub>10</sub> emissions are present in two varieties referred to as primary and secondary PM<sub>10</sub>. Primary PM<sub>10</sub> consists mostly of fugitive road dust but also includes particles from brake wear and tire wear and some “soot” particles emitted directly from the vehicle tailpipe. The methods defined in the January 2011 version of the EPA publication known as “AP-42” were used to estimate dust from paved roads. Secondary PM<sub>10</sub> consists of gaseous tailpipe emissions that take on a particulate form through subsequent chemical reactions in the atmosphere. Nitrogen oxides are the main component of secondary PM<sub>10</sub> emissions with sulfur oxides a distant second.

As summarized in Tables 9a and 9b, emission estimates for the 2015-2040 RTP satisfy the “Build < 1990” test for secondary PM<sub>10</sub> (NO<sub>x</sub> precursors) and primary PM<sub>10</sub> (direct tailpipe particulates, brake wear, tire wear, and road dust) in Ogden City. The 1990 emission estimates based on the Mobile6.2 vehicle emissions model for the 2003 conformity analysis have been updated for this conformity analysis using the MOVES model and the January 2011 AP-42 road dust methodology for consistency with current emission modeling requirements. Specifically, the NO<sub>x</sub> precursor budget (1990 emission estimate) changes from 4.57 tons/day to 6.92 tons/day, and the direct PM<sub>10</sub> budget (1990 estimate) changes from 2.28 tons/day to 1.28 tons/day. The 1990 primary PM<sub>10</sub> estimate for Ogden City includes emissions from the unpaved access road to the Ogden landfill which was closed in 1998.

For projections of primary PM<sub>10</sub> emissions, no credit was taken for a number of programs adopted since Ogden City last violated the PM<sub>10</sub> standard. These particulate reducing programs include covered load ordinances, increased frequency of street sweeping, and reduced application of deicing and skid resistant materials (salt and sand). Documentation of these programs has been provided by Ogden City but the actual benefits of these programs are not included in the emission projections below. Other areas that have estimated the benefit of these programs have found a silt load reduction of over 30% for effective street sweeping programs and a 5% silt load reduction when limiting the amount of sand and salt applied to the roads. Ogden City has also implemented a number of specific projects that have a positive effect in reducing particulate emissions including park and ride lots, storm water improvements, shoulder widening and edge striping, and addition of curb and gutter on several projects.

From this demonstration it is concluded that the 2015-2040 RTP conforms under the Emission Reductions Criteria for areas without motor vehicle emissions budgets for PM<sub>10</sub> in Ogden City.

Table 9a

### Ogden City - PM<sub>10</sub> (NO<sub>x</sub> Precursor) Conformity Determination

|   | <i>d</i>    | <i>c</i>    | <i>c</i>    | <i>e</i>    |
|---|-------------|-------------|-------------|-------------|
| <b>Year</b>   | <b>2019</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
| <b>1990 Emissions (tons/day)</b>                        | 6.92        | 6.92        | 6.92        | 6.92        |
| <i>emission rate (grams/mile)</i>                       | 0.93        | 0.54        | 0.26        | 0.21        |
| <i>seasonal VMT</i>                                     | 1,524,886   | 1,645,496   | 1,838,034   | 1,955,595   |
| <b>Projection* (tons/day)</b>                           | 1.57        | 0.97        | 0.52        | 0.46        |
| <b>Conformity<br/>(Projection &lt; 1990 Emissions?)</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> |

*a* - attainment year, *b* - budget year, *c* - 10-year rule, *d* - no budget 5-year rule, *e* - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

Table 9b

**Ogden City - PM10 (Primary Particulates\*\*)**  
**Conformity Determination**

|   | <i>d</i>    | <i>c</i>    | <i>c</i>    | <i>e</i>    |
|---|-------------|-------------|-------------|-------------|
| <b>Year</b>   | <b>2019</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
| <b>1990 Emissions (tons/day)</b>                        | 1.28        | 1.28        | 1.28        | 1.28        |
| <i>emission rates (grams/mile)</i>                      |             |             |             |             |
| <i>total exhaust particulates</i>                       | 0.0335      | 0.0180      | 0.0090      | 0.0079      |
| <i>brake particulates</i>                               | 0.0605      | 0.0614      | 0.0620      | 0.0628      |
| <i>tire particulates</i>                                | 0.0131      | 0.0127      | 0.0128      | 0.0128      |
| <i>road dust particulates</i>                           | 0.2618      | 0.2619      | 0.2578      | 0.2569      |
| <i>seasonal VMT</i>                                     | 1,524,886   | 1,645,496   | 1,838,034   | 1,955,595   |
| <b>Projection* (tons/day)</b>                           | 0.62        | 0.64        | 0.69        | 0.73        |
| <b>Conformity<br/>(Projection &lt; 1990 Emissions?)</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> | <b>Pass</b> |

\*\* Includes total PM10 exhaust particulates, road dust, tire wear, and brake wear.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

**Salt Lake County PM<sub>10</sub> Conformity**

The PM<sub>10</sub> SIP for Salt Lake County does not define a budget beyond the year 2003. Therefore, conformity tests are required only for analysis years which are identified in accordance with 40 CFR 93.118. All analysis years after 2003 must meet the 2003 budgets for primary particulates and secondary particulates (see the discussion above under Ogden PM<sub>10</sub> Conformity for an explanation of primary and secondary PM<sub>10</sub> emissions). The State air quality rule R307-310 allows a portion of the surplus primary PM<sub>10</sub> budget to be applied to the secondary PM<sub>10</sub> budget for conformity purposes. However, for the analysis years 2019, 2024, 2034, and 2040, no budget adjustments were necessary.

**Table 10**  
**Salt Lake County - PM<sub>10</sub> Budgets**  
**Direct (Dust) and Precursor (NO<sub>x</sub>) PM<sub>10</sub> Emission Budgets**  
(tons/day)

| <b>Year</b>  | <b>2019</b> | <b>2024</b> | <b>2034</b> | <b>2040</b> |
|--|-------------|-------------|-------------|-------------|
| <b>Total PM<sub>10</sub> Budget<sup>#</sup></b>        | 72.60       | 72.60       | 72.60       | 72.60       |
| <i>Direct PM<sub>10</sub> Budget to be Traded</i>      | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> |
| <b>Direct PM<sub>10</sub> Budget</b>                   | 40.30       | 40.30       | 40.30       | 40.30       |
| <b>NO<sub>x</sub> Precursor PM<sub>10</sub> Budget</b> | 32.30       | 32.30       | 32.30       | 32.30       |

Table 11a and Table 11b below demonstrate that projected mobile source emissions are within the emission budget defined in the SIP. The years listed in Table 10a and Table 10b are in accordance with requirements of the Conformity Rule (40 CFR Part 93) as noted in the tables.

From this demonstration it is concluded that the 2015-2040 RTP conforms to the applicable controls and goals of the State Implementation Plan for PM<sub>10</sub> in Salt Lake County.

**Table 11a**  
**Salt Lake County - PM<sub>10</sub> (NO<sub>x</sub> Precursor)**  
**Conformity Determination**

| <b>Year</b>                                     | <sup>c</sup><br><b>2019</b> | <sup>c</sup><br><b>2024</b> | <sup>c</sup><br><b>2034</b> | <sup>e</sup><br><b>2040</b> |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Budget<sup>#</sup> (tons/day)</b>            | 32.30                       | 32.30                       | 32.30                       | 32.30                       |
| <i>emission rate (grams/mile)</i>               | <i>0.66</i>                 | <i>0.47</i>                 | <i>0.24</i>                 | <i>0.20</i>                 |
| <i>seasonal VMT</i>                             | <i>31,323,413</i>           | <i>33,380,866</i>           | <i>38,670,273</i>           | <i>41,666,107</i>           |
| <b>Projection* (tons/day)</b>                   | 22.77                       | 17.15                       | 10.25                       | 9.39                        |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b>                 | <b>Pass</b>                 | <b>Pass</b>                 | <b>Pass</b>                 |

*a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,*

<sup>#</sup> WFRM Memo to Jeff Houk of EPA, April 15, 1994.

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.



**Table 11b**  
**Salt Lake County - PM10 (Primary Particulates\*\*)**  
**Conformity Determination**

| Year  | <sup>c</sup> 2019 | <sup>c</sup> 2024 | <sup>c</sup> 2034 | <sup>e</sup> 2040 |
|---|-------------------|-------------------|-------------------|-------------------|
| <b>Budget<sup>#</sup> (tons/day)</b>            | 40.30             | 40.30             | 40.30             | 40.30             |
| <i>emission rates (grams/mile)</i>              |                   |                   |                   |                   |
| <i>total exhaust particulates</i>               | 0.0304            | 0.0202            | 0.0099            | 0.0088            |
| <i>brake particulates</i>                       | 0.0446            | 0.0495            | 0.0516            | 0.0509            |
| <i>tire particulates</i>                        | 0.0112            | 0.0116            | 0.0117            | 0.0116            |
| <i>road dust particulates</i>                   | 0.2101            | 0.2053            | 0.2008            | 0.1971            |
| <i>seasonal VMT</i>                             | 31,323,413        | 33,380,866        | 38,670,273        | 41,666,107        |
| <b>Projection* (tons/day)</b>                   | 10.23             | 10.54             | 11.68             | 12.32             |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b>       | <b>Pass</b>       | <b>Pass</b>       | <b>Pass</b>       |

\*\* Includes total PM10 exhaust particulates, road dust, tire wear, and brake wear.

<sup>#</sup> WFRM Memo to Jeff Houk of EPA, April 15, 1994.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

### Salt Lake PM<sub>2.5</sub> Conformity

Davis, Salt Lake, and portions of Weber, Tooele, and Box Elder Counties have been designated as a non-attainment area under the new PM<sub>2.5</sub> standard (35 µg/m<sup>3</sup>) that was established in 2006. Work has begun on a PM<sub>2.5</sub> section of the State Implementation Plan which will establish a motor vehicle emission budget for emissions associated with PM<sub>2.5</sub>. Until the PM<sub>2.5</sub> SIP is completed and approved by EPA, PM<sub>2.5</sub> interim conformity requirements apply. EPA interim conformity for PM<sub>2.5</sub> emissions requires that future NOx emissions (a precursor to PM<sub>2.5</sub>) and primary particulate emissions not exceed 2008 levels.

Table 12a below demonstrates that projected mobile source emissions of NOx (a precursor to PM<sub>2.5</sub> emissions) in the five-county PM<sub>2.5</sub> non-attainment area are less than 2008 NOx emissions. Table 12b below demonstrates that projected mobile source emissions of VOC (also a precursor to PM<sub>2.5</sub> emissions) in the five-county PM<sub>2.5</sub> non-attainment area are less than 2008 VOC emissions. Table 12c below demonstrates that direct particle emissions of PM<sub>2.5</sub> in the five-county PM<sub>2.5</sub> non-attainment area are also less than 2008 direct particle emissions. Direct particle emissions include exhaust emissions of elemental carbon, organic carbon, and sulfates (SO<sub>4</sub>); and mechanical emissions from brake wear and tire wear.

From this demonstration it is concluded that the RTP conforms under the interim conformity guidelines for PM<sub>2.5</sub> areas without an approved motor vehicle emissions budget for the Salt Lake PM<sub>2.5</sub> non-attainment area.

Table 12a

**Salt Lake Area<sup>#</sup> - PM2.5 (NOx Precursor)  
Conformity Determination**

|   | <sup>c</sup> | <sup>c</sup> | <sup>c</sup> | <sup>e</sup> |
|---|--------------|--------------|--------------|--------------|
| <b>Year</b>                                     | <b>2019</b>  | <b>2024</b>  | <b>2034</b>  | <b>2040</b>  |
| <b>2008 Emissions (tons/day)</b>                | 97.98        | 97.98        | 97.98        | 97.98        |
| <i>emission rate (grams/mile)</i>               | 0.75         | 0.50         | 0.26         | 0.22         |
| <i>seasonal VMT</i>                             | 49,810,959   | 53,451,645   | 62,076,554   | 67,239,716   |
| <b>Projection* (tons/day)</b>                   | 41.44        | 29.70        | 17.77        | 16.55        |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b>  | <b>Pass</b>  | <b>Pass</b>  | <b>Pass</b>  |

# Salt Lake PM2.5 Non-Attainment Area includes: Davis, Salt Lake, and portions of Weber, Box Elder and Tooele Counties.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

Table 12b

**Salt Lake Area<sup>#</sup> - PM2.5 (VOC Precursor)  
Conformity Determination**

|   | <sup>c</sup> | <sup>c</sup> | <sup>c</sup> | <sup>e</sup> |
|---|--------------|--------------|--------------|--------------|
| <b>Year</b>                                     | <b>2019</b>  | <b>2024</b>  | <b>2034</b>  | <b>2040</b>  |
| <b>2008 Emissions (tons/day)</b>                | 61.35        | 61.35        | 61.35        | 61.35        |
| <i>emission rate (grams/mile)</i>               | 0.54         | 0.40         | 0.27         | 0.25         |
| <i>seasonal VMT</i>                             | 49,810,959   | 53,451,645   | 62,076,554   | 67,239,716   |
| <b>Projection* (tons/day)</b>                   | 29.42        | 23.86        | 18.73        | 18.34        |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b>  | <b>Pass</b>  | <b>Pass</b>  | <b>Pass</b>  |

# Salt Lake PM2.5 Non-Attainment Area includes: Davis, Salt Lake, and portions of Weber, Box Elder and Tooele Counties.

a - attainment year, b - budget year, c - 10-year rule, d - no budget 5-year rule, e - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

Table 12c

**Salt Lake Area<sup>#</sup> - PM<sub>2.5</sub> (Direct PM Emissions<sup>\*\*</sup>)  
Conformity Determination**

| <b>Year</b>                                     | <sup>c</sup><br><b>2019</b> | <sup>c</sup><br><b>2024</b> | <sup>c</sup><br><b>2034</b> | <sup>e</sup><br><b>2040</b> |
|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>2008 Emissions (tons/day)</b>                | 7.33                        | 7.33                        | 7.33                        | 7.33                        |
| <i>emission rate (grams/mile)</i>               | 0.09                        | 0.08                        | 0.07                        | 0.07                        |
| <i>seasonal VMT</i>                             | 49,810,959                  | 53,451,645                  | 62,076,554                  | 67,239,716                  |
| <b>Projection* (tons/day)</b>                   | 4.94                        | 4.60                        | 4.63                        | 4.84                        |
| <b>Conformity<br/>(Projection &lt; Budget?)</b> | <b>Pass</b>                 | <b>Pass</b>                 | <b>Pass</b>                 | <b>Pass</b>                 |

<sup>#</sup> Salt Lake PM<sub>2.5</sub> Non-Attainment Area includes: Weber, Davis, Salt Lake, and portions of Box Elder and Tooele Counties.

<sup>a</sup> - attainment year, <sup>b</sup> - budget year, <sup>c</sup> - 10-year rule, <sup>d</sup> - no budget 5-year rule, <sup>e</sup> - last year of Plan,

\* Projection = Emission Rate x Seasonal VMT / 453.6 grams per pound / 2,000 pounds per ton.

\*\* Direct PM for interim conformity includes total PM<sub>2.5</sub> exhaust particulates, brake wear, tire wear, and road dust.

### **Salt Lake and Davis County Ozone Conformity**

The 1-hour ozone standard was revoked on June 19, 2005. Therefore, a conformity analysis under the 1-hour ozone standard in Salt Lake and Davis Counties is no longer required.

The previous 8-hour ozone standard was 75 ppb. All counties within the Wasatch Front area are in attainment of the previous 8-hour ozone standard.

A new ozone standard of 70 ppb was approved October 2015. Areas of non-attainment for the new ozone standard will be designated by EPA in October 2017. Any designated non-attainment areas will be required to demonstrate conformity for ozone precursor emissions beginning October 2018.

## **Appendix – 1**

### **Definition of Regionally Significant Projects**

**Process for Determining Regionally Significant Facilities  
for Purposes of Regional Emissions Analysis (see CFR 93.105.2.c.1.ii)**

Background: 40 FR 93.101 defines “regionally significant project” and associated facilities for the purpose of transportation conformity. The federal definition does not specifically include minor arterials. The following definitions and processes will be used by the Wasatch Front Regional Council (WFRC) and Mountainlands Association of Governments (MAG) in consultation with DAQ, UDOT, UTA, FHWA, FTA, and EPA to determine which facilities shall be considered regionally significant for purposes of regional emissions analysis. It is the practice of the MPO to include minor arterials and collectors in the travel model for the purpose of accurately modeling regional VMT and associated vehicle emissions. The inclusion of minor arterials and collectors in the travel model, however, does not identify these facilities as regionally significant.

1. Any new or existing facility with a functional classification of principal arterial or higher on the latest UDOT Functional Classification Map shall be considered regionally significant (see <http://www.dot.utah.gov/index.php/m=c/tid=1228>).
2. Any fixed guide-way transit service including light rail, commuter rail, or portions of bus rapid transit that involve exclusive right-of-way shall be considered regionally significant.
3. As traffic conditions change in the future, the MPO’s - in consultation with DAQ, UDOT, FHWA, and EPA (and UTA and FTA in cases involving transit facilities) - will consider 1) the relative importance of minor arterials serving major activity centers, and 2) the absence of principal arterials in the vicinity to determine if any minor arterials in addition to those listed in Exhibit A should be considered as regionally significant for purposes of regional emissions analysis.

**Exhibit A**  
**Minor Arterials Determined to be Regionally Significant**  
**for Purposes of Regional Emissions Analysis**

40 FR 93.105(c)(ii), “Consultation – Interagency consultation procedures: Specific processes” specifies that Interagency Consultation shall include a process to identify which minor arterials should be considered as “regionally significant” for the purpose of regional emissions analysis. In consultation with DAQ, UDOT, FHWA, and EPA; and based on inspection and engineering judgment of current traffic conditions; and based on application of the “Process for Determining Regionally Significant Facilities for Purposes of Regional Emissions Analysis” agreed upon by the aforementioned agencies; the WFRC designated eight minor arterials as regionally significant.

Since 2015, all but one of the minor arterials referenced above have been reclassified with the functional type of principal arterial and are therefore by definition regionally significant. The remaining minor arterial to be considered as regionally significant for emissions analysis is listed below. It should also be noted that all collectors, minor arterials, and principal arterials are included in the highway network used in the WFRC travel demand model.

**Davis County**

none

**Salt Lake County**

none

**Weber County**

SR-79 (Hinckley Drive): SR-108 to I-15

**Process for Determining Significant Change in Design Concept and Scope  
for Purposes of Regional Emissions Analysis (see CFR 93.105.2.c.1.ii)**

Changes to regionally significant projects may or may not necessitate a new regional emissions analysis. The following definitions and processes will be used to determine what changes to project concept and scope are to be considered significant or not for purposes of regional emissions analysis.

1. Adding or extending freeway auxiliary lanes or weaving lanes between interchanges is not considered a significant change in concept and scope since these lanes are not normally included in the travel model.
2. Adding or extending freeway auxiliary/weaving lanes from one interchange to a point beyond the next interchange is considered a significant change in concept and scope.
3. A change to a regionally significant project defined in the Regional Transportation Plan that does not change how the project is defined in the travel model is not considered a significant change in concept and scope. These changes include but are not limited to lane or shoulder widening, cross section (other than the number of through lanes), alignment, interchange configuration, intersection traffic control, turn lanes, continuous or center turn lanes, and storage lanes.
4. A change to a regionally significant project defined in the Regional Transportation Plan that does alter the number of through lanes, lane capacity, or speed classification as defined in the travel model is considered a significant change in concept and scope.
5. Advancing or delaying the planned implementation of a regionally significant project that does not result in a change in the transportation network described in the travel model for any horizon year (as defined in CFR 93.101) is not considered a significant change in concept and scope.
6. Advancing or delaying the planned implementation of a regionally significant project that does result in a change in the transportation network described in the travel model for any horizon year (as defined in CFR 93.101) is considered a significant change in concept and scope.
7. Project changes not addressed in the above statements will be decided on a case by case basis through consultation by representatives from DAQ, WFRC, MAG, UDOT, UTA, FHWA, FTA, and EPA.



## **Appendix-2**

### **Box Elder County Highway and Transit Projects 2040 RTP**

#### **Box Elder County**

**Box Elder County**  
**Regionally Significant Project List – January 2015**

| Line | Source | County          | Need Phase | Constrained Phase | Capacity Need    | Priority Score | Improvement Type | Project Name   | Project Description                   | Cost 2014    | Route | Begin  | End    |
|------|--------|-----------------|------------|-------------------|------------------|----------------|------------------|--|---------------------------------------|--------------|-------|--------|--------|
| 1    | LRP    | Box Elder/Cache | STIP 2016  | 1                 | Before 2012      | 44             | Passing Lane     | SR-30 MP 97 to MP 101  | Add one travel lane in each direction | \$5,000,000  | 0030  | 97.00  | 101.34 |
| 9    | LRP    | Box Elder/Cache | 3          | 2                 | begin by Phase 1 | 27             | Widening         | SR 30 MP 95.1 to MP 102.3, SR 38 to SR 23  | Add one travel lane in each direction | \$32,040,000 | 0030  | 95.10  | 102.30 |
| 10   | LRP    | Box Elder       | 4          | 2                 |                  | 36             | Passing Lane     | I 84 Widen WB from MP 17.3 to MP 19.9  | Add one travel lane in WB direction   | \$7,150,000  | 0084  | 17.30  | 19.90  |
| 11   | LRP    | Box Elder       | 4          | 2                 |                  | 43             | Passing Lane     | I 84 Widen EB from MP 6.8 to MP 17.7   | Add one travel lane in EB direction   | \$29,975,000 | 0084  | 6.80   | 17.70  |
| 13   | LRP    | Box Elder       | 2          | 2                 | before 2012      | 28             | Widening         | SR 30 MP 90.7 to MP 95.1, I 15 to SR 38 (Collinston)   | Add one travel lane in each direction | \$19,580,000 | 0030  | 90.70  | 95.10  |
| 14   | Model  | Box Elder       | 3          | 3                 |                  | 25             | Widening         | I 15 Widen from MP 365.7 to MP 372.6, SR 13 to Honeyville (WFRC boundary from MP 365.7 to 368.3) | Add one travel lane in each direction | \$22,145,000 | 0015  | 368.30 | 372.60 |
| 15   | LRP    | Box Elder       | 4          | 3                 |                  | 43             | Passing Lane     | I 84 Widen WB from MP 29.3 to MP 32.3  | Add one travel lane in WB direction   | \$8,250,000  | 0084  | 29.30  | 32.30  |
| 16   | LRP    | Box Elder       | 4          | 3                 |                  | 37             | Passing Lane     | I 84 Widen EB from MP 25.3 to MP 29.7  | Add one travel lane in EB direction   | \$12,100,000 | 0084  | 25.30  | 29.70  |
| 17   | LRP    | Box Elder       | 4          | 3                 |                  | 46             | Passing Lane     | I 84 Widen WB from MP 33.5 to MP 35.6  | Add one travel lane in WB direction   | \$5,775,000  | 0084  | 33.50  | 35.60  |
| 22   | Model  | Box Elder       | 4          | 4                 |                  | 37             | Widening         | I 15 Widen from MP 372.6 to MP 379.5, Honeyville to Tremonton                                    | Add one travel lane in each direction | \$35,535,000 | 0015  | 372.60 | 379.50 |

**Appendix-3**  
**Highway and Transit Projects**  
**2040 RTP**  
**Tooele County**

**Tooele Valley RPO Long Range Plan Highway Projects  
February 9, 2015**

**Phase 1 (To be built by 2025)**

Main Street (SR-138) in Grantsville (West St – Center St, and Bowery St – SR-112)  
Widen from 1 lane to 2 lanes per direction

SR-36 (Stockton Town – Skyline Drive)  
Widen from 1 lane to 2 lanes per direction

Tooele Parkway (SR-112 – Droubay Road)  
New collector, 1 lane per direction

Midvalley Highway (SR-138 – I-80)  
New freeway, 2 lanes per direction

Midvalley Highway (SR-36 – Utah Avenue)  
New principal arterial, 2 lanes per direction

SR-112 (Sheep Lane - Utah Ave)  
Widen from 1 lane to 2 lanes per direction

Sheep Lane (SR-112 – SR-138)  
Widen from 1 lane to 2 lanes per direction

SR-138 (SR-112 – Midvalley Highway)  
Widen from 1 lane to 2 lanes per direction

I-80 (SR-36 – SR-201)  
Widen from 2 lanes to 3 lanes per direction

SR-112 (SR-138 – Sheep Lane)  
Widen from 1 lane to 2 lanes per direction

400 West (2000 North – Village Blvd)  
New collector, 1 lane per direction

1000 North (SR-36 – Droubay Road)  
Widen from 1 lane to 2 lanes per direction

Tooele Boulevard (SR-36 – Vine St)  
New collector, 1 lane per direction

Bates Canyon Road (1200 West – 400 West)  
New collector, 1 lane per direction

Village Boulevard (SR-138 – current western terminus)  
New collector, 1 lane per direction

## **Appendix-4**

### **RTP Amendments**

## 2015 – 2040 Regional Transportation Plan WFRC Proposed 2040 RTP Amendment #5

1. **Needs Conformity** - 5600 W BRT may be considered a "fixed guideway" so removing it from Phase 1 would be a significant change in scope.
  - a. 5600 West Transit (Salt Lake County)
    - i. Remove Phase 1 BRT from 6200 South to 2700 South
    - ii. Add Phase 1 Express Bus/Core Route from Old Bingham LRT Station to the International Center to the SLCIA to downtown SLC (latest discussion was this part on North Temple). Ivan Hooper, Avenue Consultants will have frequency, hours of operation, station location, etc...
2. **Does NOT need Conformity** - 7200 W is not a principal arterial
  - a. 7200 West (Salt Lake County)
    - i. Add Phase 2 New Construction from 700 North to SR-201 as a 3 lane facility
3. **Does NOT need Conformity** - 700 N is not a principal arterial
  - a. 700 North/7200 West/1400 North (Salt Lake County)
    - i. Add Phase 1 New Construction on 700 North from 5600 West to 7200 West, 7200 West from 700 North to 1400 North, and 1400 North from 7200 West to 8000 West as a 3 lane facilities
4. **Does NOT need Conformity** - 8000 W is not a principal arterial
  - a. 8000 West (Salt Lake County)
    - i. Add Phase 1 New Construction from 1400 North to the north I-80 Frontage Road
5. **Needs Conformity** - Wasatch Blvd. is a principal arterial so moving from Phase 2 to Phase 1 would be a significant change in scope.
  - a. Wasatch Blvd. (Cottonwood Heights) (this project may be removed if funding hasn't been allocated yet)
    - i. Change from Phase 2 to Phase 1 from Bengal Blvd to 9600 South
6. **Does NOT need Conformity** - 1100 N is not a principal arterial
  - a. 1100 North (Harrisville City)
    - i. Add Phase 1 New Construction from 140 West to 140 East as a 3 lane facility
7. **Does NOT need Conformity** - 3600 W is not a principal arterial
  - a. 3600 West (Plain City)
    - i. Add Phase 1 Operational from 2600 North to 1975 North
8. **Does NOT need Conformity** - Depot Drive is not a principal arterial
  - a. Depot Drive (Weber County)
    - i. Add Phase 1 New Construction from 12th Street to the Weber County Sheriff Office and Juvenile Multi-Use Facility as a 2 lane facility

## **AMENDMENT NUMBER 4 PROJECT OVERVIEWS**

### ***PROJECTS GUIDED BY STATE REQUIREMENTS FOR INCLUSION IN THE REGIONAL TRANSPORTATION PLAN (RTP)***

#### ***Projects Seeking Corridor Preservation Funding***

The following amendment requests are based on the State requirement that community applicants who are interested in utilizing local Corridor Preservation Funds must first have their project as part of the WFRC's RTP. Funding for these amendment projects has not yet been determined, but amendment into the RTP is the first step to allow communities to pursue local corridor preservation funds to finance these improvements.

#### **HERRIMAN CITY**

##### **1. Operational Improvements on 6000 West**

**Cost: \$2.5 Million**

This project calls for a new Phase 2 operational improvement along 6000 West from Herriman Parkway to Herriman Main Street. Benefits of this amendment would include the completion of the road cross-section, including curb, gutter, sidewalks, and storm drain improvements.

##### **2. Operational Improvements on 6400 West**

**Cost: \$1.9 Million**

This request is for a new Phase 1 operational improvement project on 6400 West from Herriman Main Street to 13400 South to help reduce traffic congestion and complete the road's cross-section, including curb, gutter, sidewalks, and storm drain improvements.

##### **3. Operational Improvements on 7300 West**

**Cost: \$2.5 Million**

This is a new Phase 3 operational improvement project on 7300 West from Herriman Main Street and Rose Canyon Road. Operational improvements would help complete the road cross-section, including curb, gutter, sidewalks, and storm drainage.

#### **SOUTH JORDAN CITY**

##### **4. Widening of Riverfront Parkway**

**Cost: \$1.8 Million**

This request is for a new Phase 1 widening project on Riverfront Parkway between 11050 South and 11400 South from three to five lanes. Benefits of this amendment include a consistent cross-section to 11400 South, along with accommodating increased traffic volumes along Riverfront Parkway.

##### **5. Operation Improvements on 2700 West**

**Cost: \$4 Million**

This request is for a new Phase 1 operational improvement on 2700 West from 9800 South to 11400 South. The widening of 2700 West will allow for a center turn lane to be added to the road's cross-section. This, in turn, will improve traffic flow which adding needed curb, gutter, sidewalks, and storm drainage improvements.

#### **COTTONWOOD HEIGHTS**

##### **6. Operational Improvements on Bengal Boulevard**

**Cost: \$2.6 Million**

This request is for a new Phase 1 operational improvement on Bengal Boulevard from Highland Drive to 2325 East. This would include a roundabout joining both 2300 East and 2325 East.



Benefits would include improved traffic safety and flow, especially for pedestrians traveling to and from a nearby school. This project would complete the road's cross-section with curb, gutter, sidewalks, and storm drain improvements.

**7. Widening of Fort Union Boulevard**

**Cost: \$3.6 Million**

This request is for a new Phase 1 widening project on Fort Union Boulevard between 3000 East and Wasatch Boulevard from two to four lanes. Benefits of this amendment include a consistent cross-section on Fort Union to Wasatch Boulevard, along with addressing increased traffic volumes along Fort Union Boulevard.

**MURRAY CITY**

**8. Widening of Vine Street**

**Cost: \$10 Million**

This project calls for the widening of Vine Street in Murray City between 900 East and the Van Winkle Expressway as a new, Phase 1 project. Benefits of this amendment include a consistent cross-section on Vine Street, along with addressing increased traffic volumes and the completion of the road cross-section, including curb, gutter, sidewalks, and storm drain improvements.

**CLEARFIELD CITY**

**9. New Construction of Depot Street**

**Cost: \$2 Million**

This request is for the extension of Depot Street from SR-193 (700 South) to the Clearfield FrontRunner Station (approximately 1250 South). This new Phase 1 project would be a three lane major collector facility providing improved street connectivity, better connection to the transit via the FrontRunner Station and would serve a planned major economic development project creating hundreds of new jobs.

**SALT LAKE COUNTY**

**10. Operational Improvements on 8000 West**

**Cost: \$2 Million**

This is a new Phase 1 project that would widen 8000 West between SR-201 and 3100 South. The project would realign the intersection at 2700 South, resulting safety and traffic congestion improvements, along with improving local street connectivity.

***Projects Seeking Weber County Sales Tax Funding***

The following amendment request is based on the State requirement that community applicants who are interested in utilizing 3<sup>rd</sup> quarter local sales tax funds must first have their project as part of the WFRC's Regional Transportation Plan. Funding for this amendment project has not yet been determined, but this first step will allow communities to pursue this avenue of possible revenues to finance these improvements.

**CITY OF MARIOTT-SLATERVILLE**

**11. Operation Improvement on 1200 West**

**Cost: \$5.6 Million**

This request is for an extension of a current Phase 1 operational improvement on 1200 West in the City of Marriott-Slaterville from 1200 South to 2700 North. The amendment would provide better traffic flow along 1200 West and would deliver a consistent cross-section including curb, gutter, sidewalks, and storm drain improvements.

## **MAJOR CAPACITY PROJECTS**

### ***Projects Seeking STP Funding***

The following amendment requests are major capacity projects that must be included in Phase 1 of the RTP in order to be eligible for Urban Surface Transportation Program (STP) funding administered by the Wasatch Front Regional Council. Funding for these amendment projects has not yet been determined, but this first step will allow communities to pursue this avenue of possible revenues to finance these improvements.

#### **DRAPER CITY**

##### **12. Widening of Lone Peak Parkway**

**Cost: \$6 Million**

This request is to move the widening project on Lone Peak Parkway from 12300 South to 12650 South from three to five lanes from Phase 2 to Phase 1. The widening and realignment will provide a consistent cross-section to Bangerter Highway, provide better traffic flow along Lone Peak Parkway, and will support a direct connection to the FrontRunner Station.

#### **TAYLORSVILLE CITY**

##### **13. New Construction of I-215 Frontage Road**

**Cost: \$14.5 Million**

This request is to move the new southbound I-215 Frontage Road between 4100 South and 4700 South from Phase 2 to Phase 1. This facility would provide congestion and safety improvement on both 4700 South and 2700 West, along with providing improved access to development between 2700 West and I-215.

#### **KAYSVILLE AND LAYTON CITY**

##### **14. Widening of Main Street**

**Cost: \$3.1 Million**

This request is for the widening of Main Street from three to five lanes from 300 West in Kaysville City to Layton Parkway in Layton City. The amendment would be for a new Phase 1 project that would provide a consistent cross-section. The project would address increased traffic volumes along Main Street.

### ***Projects to Utilize TIF Funding***

The following amendment requests are major capacity projects that must be included in Phase 1 of the RTP in order to be eligible for the Transportation Investment Fund (TIF) Program administered by the Utah Department of Transportation (UDOT).

#### **UTAH DEPARTMENT OF TRANSPORTATION**

##### **15. Bangerter Highway Interchange at 4700 South**

**Cost: \$44.3 Million**

The Utah Department of Transportation is requesting that the current intersection at Bangerter Highway and 4700 South be replaced with a freeway interchange and moved from Unfunded to Phase 1. This improvement will provide a continuous freeway cross-section from 4700 South to I-15. East and West traffic flow will improve, along with an increase in safety.

##### **16. Bangerter Highway Interchange at 13400 South**

**Cost: \$43.2 Million**

The Utah Department of Transportation is requesting that the current intersection at Bangerter Highway and 13400 South be replaced with a freeway interchange and moved from Phase 2 to Phase 1. This improvement will provide a continuous freeway cross-section from 4700 South to I-15. East and West traffic flow will improve, along with an increase in safety.

##### **17. Widening of US Highway 89**

**Cost: Currently Funded**

This request from the Utah Department of Transportation is to extend the currently funded US-89 project from Farmington City to Antelope Drive to now extend to I-84. The amendment would include the widening from four to six lanes and move this project from the unfunded portion of the RTP to Phase 1. Benefits of this improvement would help traffic flow along this major arterial, increase safety, and is part of an overall plan to upgrade this facility to a north / south freeway.

***For Information Only***

Finally, two additional UDOT projects may be funded with the TIF. Neither project requires amendment into the 2015-2040 RTP; both are included for information only.

**UTAH DEPARTMENT OF TRANSPORTATION**

**18. Construction of Interstate 15 Braided Ramp**

**Cost: \$130 Million**

The Utah Department of Transportation anticipates the new construction of a northbound braided ramp on I-15 between 9000 South and I-215. An existing operational project is already in the 2015-2040 RTP making an amendment unnecessary. However, the project details are provided for member information. This type of improvement will provide better traffic flow and helps to address increased northbound traffic volumes along I-15. This project will also provide relief to congestion at the 7200 South and 9000 South interchanges.

**19. Construction of SR-201 Extension**

**Cost: \$100 Million**

This request is outside the geographic purview of the WFRC Regional Transportation Plan, but is included for information to WFRC members due to its interaction with the 2015-2040 RTP. The project calls for extending and new construction of SR-201 from the SR-201/I-80 connection to the I-80/SR-36 connection. This project is a parallel facility alongside of I-80 and would allow for an emergency bypass, provide better traffic flow, and addresses increased traffic volumes on I-80.

## **2015 – 2040 Regional Transportation Plan Amendment Number 3 – November 2016**

### Amendment #3 proposed projects changes for the 2015-2040 RTP

- S-140 - Bangerter Highway Interchange @ 6200 South - Move from Phase 3 to Phase 1
- S-147 - Bangerter Highway Interchange @ 12600 South - Move from Phase 2 to Phase 1
- S-144 - Bangerter Highway Interchange @ 9800 South - Move from Phase 2 to Phase 1
- S-5 - I-80 from I-215 (East) to Lambs Canyon - Move from Phase 1 to Phase 2

## **2015 – 2040 Regional Transportation Plan Amendment Number 2 – May 2016**

### **UTAH DEPARTMENT OF TRANSPORTATION**

1. SR-209, 9000 South; From I-15 to 700 East - This project is currently in Phase 1 and is listed as an “operational” project. The proposed change is to make it a “widening” project.
2. SR-68, Redwood Road – There are two proposed changes:
  - From 9000 South to 11400 South - This project is an operational project and is currently in Phase 2. The proposed change would be to move the project forward to Phase 1
  - From 9000 South to Bangerter Highway - This project is a widening of the road and is currently in Phase 3. The proposed change would move the project forward to Phase 1

### **OGDEN CITY**

3. Valley Drive; From 20<sup>th</sup> Street to SR-39 - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.
4. 2<sup>nd</sup> Street; From Washington Blvd. to Monroe Street - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.
5. 17<sup>th</sup> Street; From Wall Avenue to Washington Blvd. - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.
6. 26<sup>th</sup> Street; From Wall Avenue to Washington Blvd. - Since funding is being sought through the local option sales tax, this proposed change would be to include this new project in the current RTP.

### **NORTH OGDEN CITY**

7. 2600 North; From Washington Blvd. to approximately Fruitland Drive - This is a new widening project, and since funding is being sought, this proposed change would be to include this project in the current RTP.

### **HARRISVILLE CITY**

8. Wall Avenue Extension; North from Larsen Lane. This request is for this project to be removed from the current RTP.

### **BLUFFDALE CITY**

9. 14000 South Road; From 2700 West to 3600 West - Since funding is being sought, this proposed change would be to include this new project in the current RTP.

## **2015-2040 Regional Transportation Plan Amendment Number 1 - October 2015**

### **BACKGROUND:**

Every four years the Wasatch Front Regional Council (WFRC) prepares and adopts a regional transportation plan (RTP) to identify and implement needed transportation improvements. The WFRC adopted the current RTP in May 2015. While the RTP receives considerable review before being formally adopted, the identification of new funding sources, the determination of the final environmental impact statements, or the rapid development of certain projects, may warrant a change to the RTP. A process has been formally adopted by WFRC to consider periodic revisions.

Recently, the WFRC received requests from the Utah Department of Transportation (UDOT), the Utah Transit Authority (UTA), and Layton City to amend the 2015-2040 RTP to consider the changes listed below.

WFRC staff has analyzed the potential financial implications of including these projects in Phase 1 and determined that there are adequate resources available and potential cost savings from a reprioritization of projects. The plan is able to maintain its fiscal constraint while accommodating construction of these projects in phase I. WFRC is reviewing the air quality impacts to ensure that all applicable air quality conformity requirements are met; results will be provided at the meeting.

The formal public comment period will take place from November 2 to December 1. The WFRC staff, UDOT, UTA, and Layton City representatives will present these amendments to the Regional Growth Committee's Ogden-Layton Technical Advisory Committee and the Salt Lake County PlanTac on December 16, 2015. The Regional Growth Committee and the Regional Council will review all comments and make a final recommendation in January 2016.

### **UDOT PROPOSED MODIFICATIONS TO THE 2015-2040 RTP**

#### **US-89 Improvements**

**Total Cost: \$275 million**

The Utah Department of Transportation is making a request to amend the current 2015-2040 RTP for (1) construction of new interchanges at Antelope Drive, Gordon Avenue, Oak Hills Drive and 400 North, (2) construction of frontage roads from Oak Hills Drive to Eagle Way, (3) construction of two overpasses at Crestwood Road and Nicholls Road, (4) potential widening of US-89 from 4 to 6 lanes from just north of the US-89/I-15 interchange in Farmington to Antelope Drive. The 2015-2040 RTP includes the Interchange at 400 North, the overpass at Nicholls Road, and frontage roads from Oak Hills Drive to Nicholls Road in Phase 1. The proposed amendment includes the following modifications to the RTP.

- 1. New Construction of US-89 Interchange @ Antelope Drive**  
This project will be moved from Phase 2 to Phase 1.
- 2. New Construction of US-89 Interchange @ Gordon Avenue**  
This project will be moved from Phase 2 to Phase 1.
- 3. New Construction of US-89 Interchange @ Oak Hills Drive**  
This project will be moved from Phase 2 to Phase 1.
- 4. Widening of US-89 from Antelope Drive to I-15 (Farmington)**  
This project will be moved from Phase 3 to Phase 1.

**5. New Construction of US-89 Frontage from Eagle Way to Oak Hills Drive**

The frontage road project limits will be extended to Eagle Way in the south. This project is currently in Phase 1.

**6. New Construction of Crestwood Road Overpass @ US-89**

This new project provides connectivity for pedestrians, bicycles, and vehicular traffic across US-89 and is requested to be included in Phase 1.

While these elements are presented as separate projects in the current RTP and proposed amendment, they are part of the preferred alternative developed for the US-89 Environmental Impact Statement (EIS) completed in 1996. Since the completion of the EIS, UDOT has worked to construct elements of the preferred alternative. With this project, there is an opportunity to complete most of the remaining elements of the preferred alternative. The priority components include the construction of the interchanges, the overpasses, and the frontage roads. The widening project is included in the amendment because UDOT believes a favorable bidding climate could result in enough project savings to complete the widening from Antelope Drive to I-15 in Farmington. The widening from 4 to 6 lanes from I-84 to Antelope Drive is not part of this project. The current cost estimate for the US-89 project is \$275 million and is funded from UDOT's Transportation Improvement Fund (TIF).

Project benefits include costs savings due to project efficiencies and future inflation costs, improved traffic flow, delay reductions from the elimination of at-grade intersections, and improved access and connectivity with the development of the frontage road system and overpasses.

**UTA PROPOSED MODIFICATIONS TO THE 2015-2040 RTP**

**7. Ogden-Weber State University Corridor - Transit Project 11**

**Cost: \$ 41.0 million**

The Utah Transit Authority is making a request to amend the current 2015-2040 RTP to include 25<sup>th</sup> Street as the approved alignment in Ogden City with the project mode as a modern Bus Rapid Transit (BRT) system in mixed flow traffic and with exclusive lanes. Currently, the RTP indicates that 30<sup>th</sup> Street would be the preferred alignment, with the mode undetermined. On July 28, 2015, the Ogden City Council and Mayor adopted Resolution #2015-24 approving a locally preferred alternative (LPA) for the Ogden/WSU Transit Project Study. This project is in Phase 1 of the RTP and the Environmental Assessment is expecting to be completed in 2016/2017.

**Layton City PROPOSED MODIFICATIONS TO THE 2015-2040 RTP**

**8. Gordon Avenue from 1600 East to US-89**

**Cost: \$ 28.7 million**

Layton City is coordinating with UDOT on the US-89 improvements from Antelope Drive to I-15 in Farmington. As part of the US-89 project, an interchange at Gordon Avenue will be constructed. This project is a new facility and will connect US-89 with the existing Gordon Avenue at 1600 East in Layton. The construction of Gordon Avenue is a vital component of the US-89 improvement project and will improve safety, connectivity and accessibility for state and local emergency services, citizens and pedestrians and bicyclist. The project is currently in Phase 2, and Layton City is requesting this project be moved to Phase 1 due to the change in the US-89 project. Layton City does not have full funds for this project but is planning on utilizing impact fees and pursuing alternative sources.



## **PROPOSED ADDITIONS TO THE 2015-2040 RTP**

### **9. I-15 Improvements**

**Total Cost: \$250 million**

The entire I-15 project includes the (1) construction of southbound auxiliary lanes from SR-201 to SR-71 (12300 South), (2) construction of an additional southbound general purpose lane from SR-201 to 12300 South (SR-71), (3) upgrade of the I-215/I-15 Interchange, and (4) construction of Managed Motorways along the corridor. The 2015-2040 RTP includes an operational project on I-15 throughout Salt Lake County and an Interchange upgrade at I-215/I-15 in Phase 1. The proposed amendment calls for an additional southbound general purpose lane in Phase 1 from SR-201 to 12300 South (SR-71).

This project was originally programmed for construction in FY 2015-2016. UDOT put the project on hold to evaluate additional alternatives, including advanced ramp metering (Managed Motorways), freeway to freeway ramp meeting, whether to include a GP lane and whether to extend the project to 12300 South (SR-71) from its original terminus of 9000 South (SR-209). The evaluation concluded that the project should move forward with the components outlined above. The current cost estimate for the Salt Lake County I-15 project as outlined above is \$250 million and is funded from UDOT's Transportation Improvement Fund (TIF).

Project benefits include congestion/delay reduction, safety improvements, the elimination of physical choke points, and improved main-line capacity to handle traffic inflow from adjacent facilities including I-80, SR-201, and I-215.

### **10. I-15 Operational Projects in Weber County**

**Total Cost: \$80 million**

### **11. I-15 Operational Projects in Davis County**

Operational improvements can include a variety of different project types including axillary lanes, ramp extensions and technology enhancements. One technology enhancement UDOT is evaluating is the concept of Managed Motorways. Managed Motorways are smart freeways that prevent congestion by continuously monitoring traffic flows and controlling access to the freeway with state-of-the-art ramp metering signal technologies that are more precise and sophisticated than other applications currently in use. Current project estimates for managed motorways in Davis and Weber Counties is \$80 million. Project benefits include improved facility capacity, travel reliability and safety performance during heavy traffic demand periods by effectively preventing congestion. Preliminary analysis indicates that freeway facilities with these improvements could see a 20% increase vehicle carrying capacity and a 30% reduction in crashes. UDOT requests that this project be included in Phase 1.

**DATE:** January 10, 2018  
**AGENDA ITEM:** 7  
**SUBJECT:** RGC agendas and priorities for 2018  
**PREPARED BY:** Ted Knowlton

As RGC agendas are considered for 2017, staff would like to hear what regional issues, planning efforts, and special topics the Committee would like to discuss during the year.

**BACKGROUND:**

The Regional Growth Committee (RGC) guides WFRC long-range planning work and makes recommendations to the WFRC Council for formal action on the Wasatch Choice 2050, the Regional Transportation Plan, and amendments to that Plan. In addition to those core functions, RGC has an opportunity to consider how key issues and planning efforts related to transportation, land development and economic development should be considered by WFRC.

**RECOMMENDATION:**

This item is for information only and no action is required.

**CONTACT PERSON:**

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**ATTACHMENT:**

RGC 2018 Preliminary Meeting Ideas



## Regional Growth Committee 2018 Preliminary Meeting Ideas

| CATEGORIES   | March  | May   | August                                  | October  |
|--|--|---|---|--|
| Wasatch Choice 2050 and 2019-2050 Regional Transportation Plan | Update                                       | Scenario workshop results   | Recommend preferred scenario to Council | Update   |
| Performance based planning                                     |  |   |   | Monitoring progress in the region                                    |
| Studies  | Point of the Mountain Study                  | Oquirrh View project  | UDOT statewide plan                     | Governor's Life Elevated 2020  |
| Special topic  |  | Operationalizing "Access to Opportunity" for individual transportation projects |   | Emerging technology: mobility and access to opportunity implications |
| Active Transportation Committee (reports to RGC)               | First/ Last Mile Tiger Project               |   |   |  |
|  | Active Transportation Committee's priorities |   |   |  |
|  | Golden spoke                                 |   |   |  |
| Transportation Land Use Connection (TLC)                       |  | TLC project awards  | Programs call for intent                | TLC Report Card  |