FEDERAL HIGHWAY ADMINISTRATION | FEDERAL TRANSIT ADMINISTRATION | FHWA-HIF-24-014

ASSET MANAGEMENT INTEGRATION CASE STUDY | WASHOE COUNTY RTC | 2024

Washoe County Regional Transportation Commission

The Washoe County Regional Transportation Commission (RTC) is the metropolitan planning organization (MPO) for the Reno, Nevada metropolitan area and serves as the region's transit provider. The RTC integrates asset management for roads and transit in its planning and programming to support the performance and timely maintenance of its system assets.

Notable Practices

- RTC funds a pavement preservation program for the county's regional roads system
 (arterials, collectors, and industrial roads), which makes up approximately 25% of locally
 owned roads (e.g. not owned or maintained by Nevada DOT). This program is funded by a
 percentage of the fuel tax dedicated to pavement preservation.
- Equity Evaluation for Transit Assets. RTC conducts an equity analysis of transit vehicle
 condition on routes serving areas with high racial minority populations compared to routes
 serving other areas in support of Title VI of the Civil Rights Act.
- Transit Preventative Maintenance Performance Contracts. RTC uses performance-based contracts for its transit vehicles to ensure on-time preventative maintenance.

About the Washoe County Regional Transportation Commission

Washoe County Regional Transportation Commission is the metropolitan planning organization for the Reno, Nevada metropolitan area, serving the cities of Reno and Sparks, and unincorporated areas in Washoe County. The county has a population of 493,932 people, covering 6,542 square miles. RTC is also a transit provider for the area, operating a fixed route bus system, inter-regional bus line, paratransit, microtransit, and a vanpool program.

Highway/Transit Assets and Partner Agencies

While RTC does not own any roads, it funds rehabilitation, reconstruction, and preventative maintenance for all regional roads in its boundaries through a fuel tax dedicated to pavement preservation. There are 1,047 lane miles of regional roads, which include major arterials; collectors with average daily traffic of at least 5,000 or greater, cross a significant travel barrier such as the Truckee River or freeway, or provide access to major existing or future regional facilities; certain

designated, industrial roadways with freight movement; and roadways that include a transit route.¹ The remaining 3,293 lane miles of local roads in the region and two state highways are maintained by local agencies and the Nevada Department of Transportation, respectively. Nevada DOT manages a Highway Bridge Program, which is supported by RTC to provide funding for bridge replacement or repair in the region.

RTC operates the RTC RIDE and RAPID regional fixed route bus system, which includes 26 bus routes. The agency also operates the demand-responsive RTC FlexRIDE, RTC ACCESS paratransit service, and RTC VANPOOL.² RTC continuously monitors the performance of each transit route and actively manages the transit fleet and facilities to ensure a state of good repair.

RTC's asset management and transit programs are funded by local sources, including the following:

- Fuel Tax Indexed to the Producer Price Index (PPI). In 2009, the county passed legislation to index fuel taxes to the PPI. Eligible uses for fuel tax include overlays, reconstruction, and new construction for regional streets included in the regional road system. RTC dedicates a portion of this funding source to the preservation of the existing regional network.
- Transit Sales Tax. Washoe County has levied a dedicated 5/16% sales tax (comprised of a 1/4% tax and half of a 1/8% sales tax) provision since 2003. This funding source provides half the funds necessary for RTC to operate RTC RIDE and RTC ACCESS.
- Road Sales Tax. Half of the 1/8% sales tax is allocated to road projects, including the pavement preservation program.

Governance

The RTC Board of Commissioners, which includes representatives from Reno City Council, Sparks City Council, and Washoe County Commission, establishes administrative and operational policy for the agency and approves the long range transportation plan (LRTP) and the transportation improvement program (TIP).

The RTC's Technical Advisory Committee, which includes representatives of municipal and county planning and public works departments, Nevada DOT, FHWA, the Reno-Sparks Indian Colony, and other regional partners, informs the content of the LRTP.

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¹ RTC Washoe County. 2023. Regional Road Strategic Road Map Report. https://www.rtcwashoe.com/wp-content/uploads/2023/03/RTC-Regional-Role-Strategic-Road-Map-Report.pdf

² RTC Washoe County. 2023. RTC 2050 Regional Transportation Plan. https://www.rtcwashoe.com/wp-content/uploads/2017/02/D57414_RTP_2050.pdf

Asset Management Relationship to Long Range Planning

RTC publishes the Regional Transportation Plan, which is the long range transportation plan for the Washoe County area. The Regional Transportation Plan includes a prioritized list of projects which informs the Regional TIP.

RTC manages a Regional Pavement Management System for RTC and local agencies to prioritize pavement preservation work. The RTC Streets and Highways Division manages a regional MicroPAVER-based Regional Pavement Management System (PMS), which is used by the RTC and local governments to create the Regional Pavement Preservation Program. The PMS maintains pavement condition index data for each regional road and is used to prioritize preservation projects.

RTC prioritizes regional road pavement preservation needs based on the pavement condition index (PCI) score, roadway classification, and traffic volumes. Projects are selected based on both this initial analysis and input from the Pavement Preservation Technical Advisory Committee, composed of representatives from local planning and public works departments.³

Pavement Preservation Coordination with Complete Streets Implementation. RTC works with local agencies to implement Complete Street designs in conjunction with its preventative maintenance slurry seal program on regional roads. RTC uses Complete Streets designs where possible to improve safety for all road users. The agency notes that "the Complete Streets design approach has reduced crashes on many regional roads by between 31 and 46%," slows vehicle speeds, and provides dedicated spaces for people walking, bicycling, or taking transit.

RTC sets regional targets for pavement condition and transit asset condition. RTC has adopted a local performance management target for the pavement condition of regional roads, to meet an overall PCI of 80, which the agency has been able to accomplish through the Regional Roads Program.⁴ Transit targets are based on an assessment that categorized condition, preventative maintenance schedule, cost of replacement and lifespan.⁵

Tools and Analysis Methods

Equity evaluation for transit assets. RTC conducts an equity analysis of transit vehicle condition on routes serving areas with high racial minority populations compared to routes serving other areas in support of Title VI of the Civil Rights Act. The analysis consists of a review of the fixed route average

³ RTC Washoe County website, Advisory Committee Information. https://www.rtcwashoe.com/about/advisory-committee-information/

⁴ RTC Washoe County. 2023. Regional Road Strategic Road Map Report. https://www.rtcwashoe.com/wp-content/uploads/2023/03/RTC-Regional-Role-Strategic-Road-Map-Report.pdf

⁵ Interview with RTC Washoe County. 2023.

vehicle age comparison of bus routes serving census tracts with minority populations over 35% to bus routes serving all other census tracts.6

Relationship of Asset Management to Programming

RTC funds a preservation program for regional roads. This program is funded by a percentage of the fuel tax dedicated to supporting pavement preservation.

Transit Preventative Maintenance Performance Measure. RTC uses performance-based contracts for its transit vehicles to ensure on-time preventative maintenance. Vendors not meeting performance measures for a preventative maintenance schedule are subject to liquidated damages. In 2021, the transit system met the 100% target for meeting all preventative maintenance deadlines. RTC works with two vendors for maintenance: one for fixed route service and one for paratransit/microtransit service. The vendors use RTC's two maintenance facilities to perform maintenance on the vehicles.

Short-term transit strategies plan coordinated with the long range transportation plan. RTC publishes a short-term transit plan, which outlines changes to RTC's public transportation services over a five-year period. The plan focuses on service; however, it also includes a discussion of asset management strategies, with the most recent plan including a recommendation to develop a single enterprise asset management system for all transit assets and upgrades to transit facilities and bus stops.

Challenges and Opportunities

Incorporating scenario planning into the LRTP update. RTC is pursuing a scenario-based planning approach for the next LRTP update. A scenario planning approach would allow RTC to consider policy and prioritization options amid growth, land use, and funding scenarios, among other factors out of the agency's control. While optional, scenario planning is a helpful tool and is considered a strong practice among agencies in the field.

Developing a Financial Trade-off Analysis. RTC is also developing a financial planning process for investment tradeoffs related to policy and project prioritization decisions.8

Enhancing performance measures to prioritize transit asset projects in the TIP. RTC is working on improvements to an internal project prioritization framework to guide transit asset project

8 Ibid

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⁶ Washoe County Regional Transportation Commission. 2022. RTC Transportation Optimization Plan Strategies (TOPS) 2023-2027. https://www.rtcwashoe.com/wp-content/uploads/2022/08/RTC-TOPS-Final-Report.pdf

⁷ RTC Washoe County. 2023. Regional Road Strategic Road Map Report. https://www.rtcwashoe.com/wp-content/uploads/2023/03/RTC-Regional-Role-Strategic-Road-Map-Report.pdf

prioritization in the TIP. The process would focus in part on determining when assets should be replaced or repaired. The project prioritization framework will be evaluated in the pending LRTP update and will be closely tied with preferred scenario planning outcomes. While there is still work to be done, it is anticipated that transit asset projects will be prioritized based on need, timing, and funding. 9 ⁹ Interview with RTC Washoe County. 2023.

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