Wheeler County Public Transportation Plan

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Section I: Introduction to the Public Transportation Plan

To better understand, document, and address Wheeler County residents' unmet transportation needs, Wheeler County Community Transportation (WCCT) retained the Mid-Columbia Economic Development District (MCEDD), with financial support from the Oregon Department of Transportation (ODOT), to complete a needs assessment and plan for general public transportation services in Wheeler County. MCEDD was contracted to gather information through a public engagement process to examine the potential to expand public transportation services beyond the scope of existing services in the county. The project's primary purpose is to identify and evaluate the following: current transit use and public transportation services provided in Wheeler County, gaps in service, future transit demand, and recommended public transportation service options and associated costs to meet the needs of Wheeler County residents. The purpose of this plan is to fulfill the latter.

The needs assessment provides context and supporting information for this plan. The information generated for and presented in the needs assessment and public transportation plan is intended to help WCCT plan for the transportation needs of Wheeler County residents. It is important to note that the service options proposed in this plan are intended to address the needs, travel patterns, and destination demands identified in the spring of 2013. Changes in ridership demand, county demographics, and associated economic and transportation needs must be monitored to ensure that WCCT continues to operate a responsive service.

This plan is presented in three sections. ***Section II: The Transportation System***, outlines the proposed service area, origins and destinations, hours of operation, fare structure, and vehicle maintenance schedule for WCCT considering additions to existing bus service. ***Section III: The Budget***, presents projected expenses for 2013-2017, a breakdown of costs for additional transportation services, and estimates for the addition of paid drivers. ***Section IV: Analysis Tool and Performance Measures***, presents techniques WCCT can use to anticipate the cost of existing and additional transportation services by destination, as well as performance measures to evaluate use and effectiveness of offered services.

Section II: The Transportation System

Introduction

This section describes the characteristics of a Public Transportation System for Wheeler County, which is informed by the preferences presented in the needs assessment. Components of the system outlined here include the service area, proposed origins and destinations, hours of operation, and fare structure for general public transportation service in Wheeler County. A brief description of the vehicle management schedule for the proposed service is also included below. The service described herein provides details on the recommended additions to general public demand response transportation service.

Service Area

Wheeler County Community Transportation serves all residents of Wheeler County. The geographic service area is primarily the 1,714 square miles contained by Wheeler County. Of course, as is discussed in the Wheeler County Public Transportation Needs Assessment, many residents have transportation needs to access services outside of the county. WCCT makes frequent trips outside of the official service area to destinations in Deschutes, Crook, Gilliam, Wasco, and Multnomah counties. The proposed additions to monthly transportation service in this plan provide for increased trip frequency within the WCCT service area to Fossil, and destinations such as Bend, Redmond, Prineville, and Madras.

Public transportation vehicles are currently stationed in communities throughout Wheeler County to support efficient use of each vehicle and keep mileage as low as possible while serving demand throughout the county. The cities of Fossil, Spray, and Mitchell have one minivan and one bus stationed in each community at all times. Spray and Fossil have a standard van at all times. One minivan is also stationed in Richmond, a ghost town in the center of the county, to serve trip demand from outlying areas. Continuing this practice will enable WCCT to respond efficiently to trip demand throughout Wheeler County.

Origins and Destinations

Table 2-1 shows the regular trips made by WCCT each month and additional trip frequency proposed to address trip and destination demand indicated by the Needs Assessment results. Weekly trips are proposed for a run from Fossil to Bend, while continuing the weekly trip from Fossil to Condon. A monthly trip is proposed to meet demand from Fossil to Madras, while continuing a monthly trip from Fossil to The Dalles. A trip from Mitchell to Fossil is proposed for the first and third Wednesday each month and a monthly trip from Mitchell to Bend. Two monthly trips are proposed from Mitchell to Prineville, while continuing the monthly trip from Mitchell to Redmond, which could serve as one of the Mitchell to Prineville runs as well. Likewise, two monthly trips are proposed from Spray to Bend and from Spray to Fossil (perhaps on the first and third Wednesday each month as well).

Table 2-1: Existing and Proposed Regularly Scheduled Trips per Month

Trip Pair	Existing Frequency Per Month	Vehicle Used for Existing Run	Additional Frequency Per Month	Vehicle	Total Frequency Per Month
Fossil-Bend	3	Bus	1	Bus	4
Fossil-Condon	4	Bus	0	N/A	4
Fossil-Madras	0	N/A	1	Bus/mid-size van	1
Fossil-The Dalles	1	Van	0	N/A	1
Mitchell-Bend	0	N/A	1	Bus	1
Mitchell-Fossil	1	Bus	1	Bus	2
Mitchell-Prineville	1	Van	1	Van	2
Mitchell-Redmond	1	Van	0	N/A	1
Spray-Bend	0	N/A	2	Bus/large van	2
Spray-Fossil	1	Bus	1	Bus	2
Total	***12***		***8***		***20***

Hours of Operation

The current hours of operation for WCCT services are 8:00 AM to 5:00 PM. Volunteer drivers are generally available on weekdays to serve demand-response trip requests. However, regular runs to Bend, Redmond, and Prineville leave Wheeler County by 7:00 AM and return between 5:00 - 7:00 PM. Trip return time is on a loose schedule at times due to the variability in trip purpose and winter weather conditions.

Results from the Needs Assessment show demand for weekday service between 7:00 - 10:00 AM, with the greatest demand for service at 8:00 AM and moderate demand for service between noon and 5:00 PM. Depending on the distance to each destination, trips may have to get an early start from Wheeler County to allow adequate time for riders to access appointments and amenities before returning. The proposed additional service schedule in this plan is dependent on the same variables as existing services, such as trip purpose and weather conditions. However, by focusing on general public transportation service, WCCT can operate regular monthly trips on a set schedule that responds to demand. Table 2-2 lists proposed timing for specific trips, based

on the trip demand information gathered in the Needs Assessment and run through the Analysis Tool in Section IV.

Table 2-2: Hours of Operation - Trip Schedule

Trip Pair	Trip Mileage (roundtrip)*	Trip Hours**	Time
Spray-Bend	260	9.3	7:00 AM – 4:30 PM
Spray-Fossil	84	5.4	8:00 AM – 1:30 PM
Mitchell-Prineville	114	6.1	8:00 AM – 2:00 PM
Mitchell-Bend	186	7.7	8:00 AM – 4:00 PM
Mitchell-Fossil	108	6.0	8:00 AM – 2:00 PM
Mitchell-Redmond	152	6.9	8:00 AM – 3:00 PM
Fossil-Bend	238	8.8	7:00 AM – 4:00 PM
Fossil-The Dalles	200	8.0	8:00 AM – 4:00 PM
Fossil-Madras	151	6.9	8:00 AM – 3:00 PM
Fossil-Condon	58.6	4.9	8:00 AM – 1:00 PM

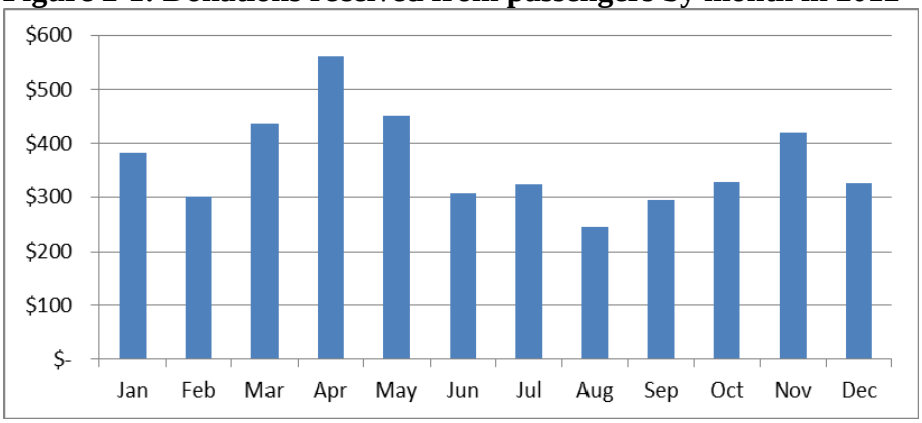
*Mileage totals assume additional 20 miles in pickup/dropoff and destination service.
**Hour totals assume 4 hours at destination.

The schedule proposed above reflects preferences indicated by Wheeler County residents for the Needs Assessment. However, WCCT must monitor ridership and trip demand over time and respond accordingly with service changes when able.

Fare Structure

Wheeler County Community Transportation currently operates a donation-based service. Historically, the suggested donation has been $2.00 for in-county trips and $3.00 for longer, out-of-county trips. Figure 2-1 shows the monthly totals for donations received in 2012, with an average of $364.70 collected per month.

Figure 2-1: Donations received from passengers by month in 2012



Source: Wheeler County Community Transportation, 2013.

Results from the Needs Assessment indicate most residents of Wheeler County are willing to pay a fare, though some prefer the donation-based system while others prefer a set fare structure. Table 2-3 shows the proposed donation structure for WCCT to implement:

Table 2-3: Structure for Suggested Donations

Zone	Area	Fare
Zone 1	All trips within Wheeler County	$5.00
Zone 2	All trips leaving Wheeler County	$10.00

Asset Management

Table 2-4 shows WCCT's vehicle inventory as of April 2013. Replacement vehicles expected to be added to the fleet in 2013 include an ADA Standard van to replace the 1996 Standard van and a 14-passenger lift-equipped bus with two wheelchair stations to replace the 2001 bus. WCCT will retain the 2001 bus as a back-up vehicle.

Table 2-4: WCCT Fleet (as of April 2013)

Year	Make	Model	# of Seats	Wheel Chair Stations	ADA (Yes/No)
2013	Dodge	Grand Caravan/Braun Entervan	5	2	Yes
2012	Dodge	Grand Caravan/Braun Entervan	5	2	Yes
2010	Dodge	Grand Caravan/Braun Entervan	5	2	Yes
2008	Chevrolet	Uplander	5	2	Yes
2007	Chevrolet	Uplander	5	2	Yes
2007	Ford	350	8 to 10	0	No
1996	Ford	Club	8 to 10	0	No
2011	Chevrolet	ADA Bus	14	2	Yes
2010	Chevrolet	ADA Bus	14	2	Yes
2001	Chevrolet	ADA Bus	14	2	Yes

WCCT currently tracks mileage on its vehicles. Total mileage reported for 2012 was 87,042. Assuming vehicle use (mileage) remains similar to 2012 moving forward, but with the eight proposed monthly service additions, WCCT vehicles would total 105,661 miles annually. The service additions represent a greater than 21 percent increase in mileage. A corresponding increase in miles per WCCT vehicle would require vehicle maintenance and replacement at shorter intervals than existing operations demand. WCCT must continue to track mileage on each

vehicle, especially to keep current on vehicles serving long-distance trips, such as Fossil or Spray to Bend, or trips made with greater frequency.

In addition, WCCT may make use of the Analysis Tool described in Section IV to estimate the rate at which specific vehicles will reach their mileage limits, based on the monthly trips those vehicles serve. Of course, demand for certain trips will determine what size vehicle is used, which may change over time, and although mileage from individually requested demand response trips can be projected based on averaging service miles from past years, the resulting projection of vehicle use still just provides a guideline for WCCT to follow, but will not replace the need to consistently track actual use to plan for maintenance and replacements.

An effective strategy for monitoring vehicles for repair and replacement, and for identifying problem vehicles, is to calculate the total operational cost and repair cost per mile for each vehicle. WCCT can track the resulting ratio for each vehicle in a spreadsheet and when the costs per mile increase, WCCT can determine an appropriate schedule for the vehicle to undergo repairs or regular maintenance, or if the vehicle has reached a low enough efficiency to warrant replacement.

Lastly, as WCCT obtains most of its funding for vehicle replacement from ODOT, WCCT must adhere to ODOT's vehicle maintenance and replacement policies and the policies of the grant funding that applies. Funding sources available for vehicle replacement include Federal 5310 and 5311 programs, as well as the STIP Enhance program administered by ODOT.

Section III: The Budget

Introduction

This section covers costs associated with existing transportation services offered by WCCT, projected expenses for WCCT through 2017, a breakdown of costs for additional transportation services, and estimates for the addition of paid drivers to the Public Transportation System.

Budget Considerations for Existing and Proposed Additional Service

The budget was developed for both existing WCCT services and proposed additional transportation services. Expenses are tracked by Wheeler County, as per the requirements for funding through ODOT and the Federal Transportation Administration, for administration and operation expenses associated with existing WCCT services. WCCT provided quarterly expense data, which was converted to an annual total for 2012 and averaged by month. Table 3-1 shows the itemized quarterly, annual, and monthly average expense data for WCCT services in 2012. Items such as Alcohol and Drug Testing, Vehicle Accident Repair, and Employee Certification and Training were assigned placeholder estimates for 2012, as they did not have much if any expenses in 2012, but will likely have relevant expenses in the future. In addition, Figure 3-1 shows that in 2012 an estimated 64 percent of WCCT's expenses were for operations, while 36 percent were for program administration.

Figure 3-1: WCCT Operational vs. Administrative Expenses in 2012

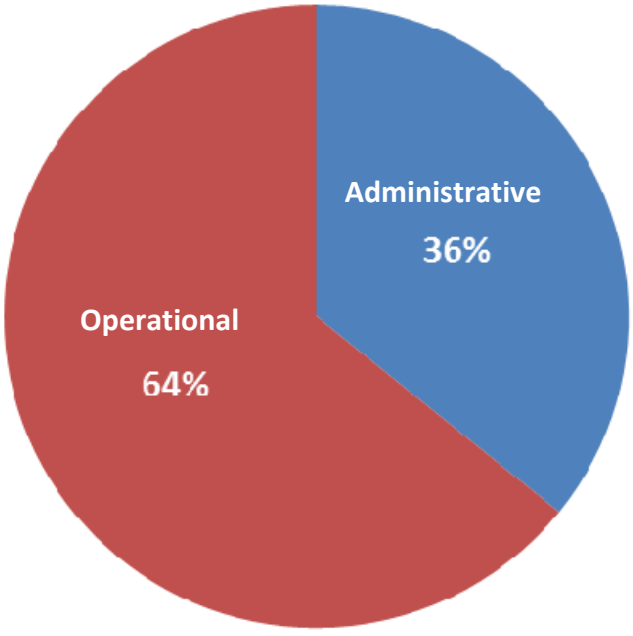


Table 3-1: WCCT 2012 Expenses

	Jan-Mar 12	Apr-Jun 12	Jul-Sep 12	Oct-Dec 12	2012 Total	Avg/month
Admin Expenses						
Labor: Salary & Fringe Benefits	$ 9,539.45	$ 10,370.53	$ 9,543.52	$ 7,905.13	$ 37,358.63	$ 3,113.22
Administrative Office Space Costs					$ -	$ -
Administrative Employee Training, Certification				$ 193.75	$ 193.75	$ 16.15
Marketing/Public Involvment	$ 60.98	$ 90.00	$ 93.15	$ 504.27	$ 748.40	$ 62.37
Agency Liability Insurance					$ -	$ -
Contracted Services (e.g. legal, payroll, audit, etc.)		$ 790.80	$ 200.00		$ 990.80	$ 82.57
Administering Drug & Alcohol Testing	$ 22.00	$ 23.00	$ 22.00	$ 23.00	$ 90.00	$ 7.50
Travel	$ 115.02	$ 257.13	$ 93.15	$ 25.92	$ 491.22	$ 40.94
Durable Equipment Less than $5,000	$ 289.97				$ 289.97	$ 24.16
Other Administrative Expenses						$ -
Communications	$ 107.82	$ 179.70	$ 67.89	$ 77.88	$ 433.29	$ 36.11
Supplies	$ 13.46	$ 258.85	$ 159.63	$ 219.41	$ 651.35	$ 54.28
Total Admin Costs	$ 10,148.70	$ 11,970.01	$ 10,179.34	$ 8,949.36	$ 41,247.41	$ 3,437.28
Operating Expenses						
Paid Drivers: Salary & Fringe plus cost of add'l trips					$ 18,018.18	
Labor: Salary & Fringe Benefits	$ 7,185.09	$ 7,252.25	$ 7,395.67	$ 11,341.72	$ 33,174.73	$ 2,764.56
Operating Employee Training/Certification		$ 4.00	$ 4.50	$ 3.00	$ 500.00	$ 41.67
Vehicle Preventive Maintenance	$ 2,160.53	$ 2,445.75	$ 531.29	$ 1,943.71	$ 7,081.28	$ 590.11
Vehicle Accident Repair	$ 50.00	$ 50.00	$ 50.00	$ 50.00	$ 200.00	$ 16.67
Tires (non-capital)		$ 1,892.58		$ 2,577.44	$ 4,470.02	$ 372.50
Fuel & Oil	$ 6,421.20	$ 5,798.37	$ 1,405.14	$ 4,620.24	$ 18,244.95	$ 1,520.41
Spare Parts (not included in PM)			$ 1.99		$ 1.99	$ 0.17
Transit Service Contracts					$ -	$ -
Operations and Passenger Facility Maintenance					$ -	$ -
Vehicle/Facility Insurance			$ 8,964.97	$ 296.41	$ 9,261.38	$ 771.78
Durable Equipment Less than $5,000					$ -	$ -
Other Operating Expenses						$ -
Communications - office phone, 800 # call-in	$ 158.92	$ 282.41	$ 131.32	$ 119.50	$ 692.15	$ 57.68
License, title, registration new vehicle			$ 108.49		$ 108.49	$ 9.04
Supplies for vehicles	$ 178.97	$ 153.38		$ 13.98	$ 346.33	$ 28.86
Driver Reimbursement	$ 74.47	$ 117.34		$ 153.61	$ 345.42	$ 28.79
Total Operating Costs	$ 16,229.18	$ 17,996.08	$ 18,593.37	$ 21,119.61	$ 73,938.24	$ 6,161.52

Source: Candy Humphreys, April 2013

Data from Table 3-1 forms the basis for a five-year budget projection starting in 2013. Please note, the item in the 2012 budget for paid drivers is merely a placeholder for the projected expenses if paid drivers are added in the next five years. Overall, the budget was adjusted for annual inflation of 2 percent for most items, except Vehicle Preventive Maintenance, which was adjusted for 5 percent annual inflation. Table 3-2 shows the projected budget estimates for 2013 through 2017. Budget expenses related to scheduling and dispatching, as well as much of the administrative functions for WCCT, are expected to maintain similar levels even with the proposed additional transportation services, especially as more passengers make use of the regular monthly trips rather than scheduling individual trips. Essentially, scheduling and dispatching of existing transportation service for seniors and individuals with disabilities will be shared with the additional general public transportation service. Figure 3-2 illustrates the increase in projected operational and administrative expenses due to inflation.

Figure 3-2: Projected Cost Increase from 2013 to 2017

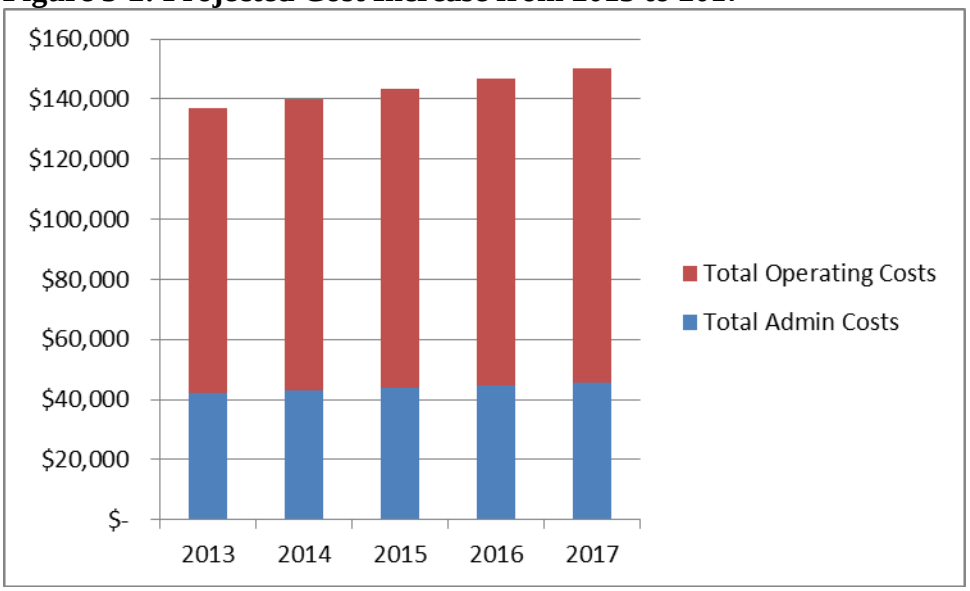


Table 3-2: WCCT Budget Projection 2013-2017

	2013	2014	2015	2016	2017
Admin Expenses	1	2	3	4	5
Labor: Salary & Fringe Benefits	$38,105.80	$38,867.92	$39,645.28	$40,438.18	$41,246.95
Administrative Office Space Costs					
Administrative Employee Training, Certification	$197.63	$201.58	$205.61	$209.72	$213.92
Marketing/Public Involvement	$763.37	$778.64	$794.21	$810.09	$826.29
Agency Liability Insurance					
Contracted Services (e.g. legal, payroll, audit, etc.)	$1,010.62	$1,030.83	$1,051.44	$1,072.47	$1,093.92
Administering Drug & Alcohol Testing	$91.80	$93.64	$95.51	$97.42	$99.37
Travel	$501.04	$511.07	$521.29	$531.71	$542.35
Durable Equipment Less than $5,000	$295.77	$301.68	$307.72	$313.87	$320.15
Other Administrative Expenses					
Communications	$441.96	$450.79	$459.81	$469.01	$478.39
Supplies	$664.38	$677.66	$691.22	$705.04	$719.14
Total Admin Costs	$42,072.36	$42,913.81	$43,772.08	$44,647.52	$45,540.47
Operating Expenses					
Paid Drivers: Salary & Fringe plus cost of add'l trips	$18,378.54	$18,746.11	$19,121.04	$19,503.46	$19,893.53
Labor: Salary & Fringe Benefits	$33,838.22	$34,514.99	$35,205.29	$35,909.39	$36,627.58
Operating Employee Training/Certification	$510.00	$520.20	$530.60	$541.22	$552.04
Vehicle Preventive Maintenance*	$7,435.34	$7,807.11	$8,197.47	$8,607.34	$9,037.71
Vehicle Accident Repair	$204.00	$208.08	$212.24	$216.49	$220.82
Tires (non-capital)	$4,559.42	$4,650.61	$4,743.62	$4,838.49	$4,935.26
Fuel & Oil	$18,609.85	$18,982.05	$19,361.69	$19,748.92	$20,143.90
Spare Parts (not included in PM)	$2.03	$2.07	$2.11	$2.15	$2.20
Vehicle/Facility Insurance	$9,724.45	$10,210.67	$10,721.21	$11,257.27	$11,820.13
Other Operating Expenses					
Communications - office phone, 800 # call-in	$705.99	$720.11	$734.52	$749.21	$764.19
License, title, registration new vehicle	$110.66	$112.87	$115.13	$117.43	$119.78
Supplies for vehicles	$353.26	$360.32	$367.53	$374.88	$382.38
Driver Reimbursement	$352.33	$359.37	$366.56	$373.89	$381.37
Total Operating Costs	$94,784.10	$97,194.57	$99,679.00	$102,240.14	$104,880.88
Total Admin and Operating Expenses	**$136,856.46**	**$140,108.38**	**$143,451.08**	**$146,887.66**	**$150,421.35**
Monthly Avg.	$11,404.70	$11,675.70	$11,954.26	$12,240.64	$12,535.11

*2% inflation, except for preventative maintenance, which is 5%

Paid Driver and Proposed Trip Expenses

Paid drivers would augment the existing service, which is provided solely by volunteer drivers at the present time. Preferences expressed in the needs assessment, specifically drawn from key findings from the agency interviews, indicate the support for a transportation system with paid drivers to enhance the stability and reliability of public transportation in Wheeler County. Projected expenses for WCCT include a substantial increase in operational costs to account for the paid-drivers expense item. The cost for paid drivers considers the following:

- Number of paid drivers needed to meet demand for the additional public transportation trips per month outlined in Section II
- FTE for paid drivers
- Wage and fringe estimates

The most efficient approach to adding paid drivers to WCCT is to have three part-time paid drivers, stationed in each of the three main communities in the county, to serve additional public transportation trips at a maximum of 70 hours per month. The wage/fringe rate for cost projections was established at $12.34 per hour, which represents a comparable rate to drivers in similar rural/frontier county transportation systems (see Wheeler County Public Transportation Needs Assessment, Section VI). Part-time drivers are a realistic option for Wheeler County, considering the current availability of volunteers, and the county would have a reduced cost compared to the provisions for full-time county employees. Table 3-3 shows that the proposed system would add just under $864 per month and $10,367 annually in paid-driver expense.

Table 3-3: Driver Cost Estimates

	Hours/Mo	Total Rate	Benefits	Total Cost/Mo	Total Cost/Yr
1 FT driver	173.33	$12.34	$912.60	$3,051.80	$36,621.56
1 PT driver	70	$12.34		$863.91	$10,366.86
3 FT drivers	520	$12.34	$2,737.81	$9,155.39	$109,864.68
3 PT drivers	70	$12.34		$863.91	$10,366.86
Benefits: Life Ins. = $25.90/mo. Healthcare (90%) = $630/mo. individual, $1,906/mo. family. Retirement = 12% of gross wages.					

Table 3-4 lists the proposed additional trips and their associated costs, including paid driver costs. The driver costs were determined by multiplying the proposed wage/fringe rate by the estimated duration of each roundtrip (see Section IV for more detail). The estimated total cost for the eight additional monthly trips being proposed is $637.61, which when added to the operational cost of the proposed trips, provides a baseline annual additional monthly trip cost with paid driver estimate of $18,018.18 for use in the five-year expense projection.

Table 3-4: Monthly public transportation services and costs to serve regular travel demand in Wheeler County

Trip Pair	Existing Frequency Per Month	Vehicle Used for Existing Run	Cost of Existing Regular Trips Per Month (based on $/mi, without paid drivers)	Additional Frequency Per Month	Vehicle	Cost of Proposed Additional Trips	Driver Cost Per Trip	Total Trip Cost/Month (incl. existing + additional w/paid driver)
Fossil-Bend	3	Bus	$324.95	1	Bus	$108.32	$109.15	$542.42
Fossil-Condon	4	Bus	$106.68	0	N/A	N/A	$59.95	$106.68
Fossil-Madras	0	N/A	N/A	1	Bus/mid-size van	$68.72	$85.29	$154.02
Fossil-The Dalles	1	Van	$91.02	0	N/A	N/A	$98.73	$91.02
Mitchell-Bend	0	N/A	N/A	1	Bus	$84.65	$94.89	$179.54
Mitchell-Fossil	1	Bus	$49.15	1	Bus	$49.15	$73.50	$171.81
Mitchell-Prineville	1	Van	$51.88	1	Van	$51.88	$75.15	$178.91
Mitchell-Redmond	1	Van	$69.18	0	N/A	N/A	$85.57	$69.18
Spray-Bend	0	N/A	N/A	2	Bus/large van	$236.66	$115.19	$467.03
Spray-Fossil	1	Bus	$38.23	1	Bus	$38.23	$66.92	$143.38
Total	***12***		***$731.09***	***8***		***$637.61***	***$735.28***	***$2,103.99***

Section IV: Analysis Tool and Performance Measures

Introduction

This section presents a three-step analysis tool developed for WCCT to anticipate the cost of existing and additional transportation services by destination based on trip mileage and trip time. The section also lists performance measures for WCCT to evaluate service use and effectiveness.

Analysis Tool

Step 1: Take top 3 destinations for each origin, based on survey results and determine round trip mileage and travel time, based on 45 mph. Account for either 4 extra hours in town for passengers to run errands, or an extra 20 miles.

	Spray	Mitchell	Fossil
Destination 1	**Bend**	**Prineville**	**Bend**
Mileage	120	47	109
RT	240	94	218
Around town (+20 mi)	260	114	238
Time (45 mph)	5.3	2.1	4.8
Around town (+4 hr)	9.3	6.1	8.8
Destination 2	**Redmond**	**Bend**	**The Dalles**
Mileage	100	83	90
RT	200	166	180
Around town (+20 mi)	220	186	200
Time (45 mph)	4.4	3.7	4.0
Around town (+4 hr)	8.4	7.7	8.0
Destination 3	**Prineville**	**Redmond**	**Madras**
Mileage	83	66	65.5
RT	166	132	131
Around town (+20 mi)	186	152	151
Time (45 mph)	3.7	2.9	2.9
Around town (+4 hr)	7.7	6.9	6.9
Destination 4	**Fossil**	**Fossil**	**Condon**
Mileage	32	44	19.3
RT	64	88	38.6
Around town (+20 mi)	84	108	58.6
Time (45 mph)	1.4	2.0	0.9
Around town (+4 hr)	5.4	6.0	4.9

*Green bars show total mileage and hours per trip

Step 2: Based on top destinations, travel time and mileage, estimate cost of trips based on 2012 Wheeler County monthly average cost per mile of $0.46 and cost per trip hour of $11.53

Trip Pair	Trip Mileage	Trip Hours	Cost by Mileage	Cost by Hours
Spray-Bend	260	9.3	$118.33	$107.57
Spray-Prineville	186	7.7	$84.65	$88.62
Spray-Fossil	84	5.4	$38.23	$62.49
Spray-Redmond	220	8.4	$100.12	$97.33
Mitchell-Prineville	114	6.1	$51.88	$70.18
Mitchell-Bend	186	7.7	$84.65	$88.62
Mitchell-Fossil	108	6.0	$49.15	$68.64
Mitchell-Redmond	152	6.9	$69.18	$79.91
Fossil-Bend	238	8.8	$108.32	$101.94
Fossil-The Dalles	200	8.0	$91.02	$92.20
Fossil-Madras	151	6.9	$68.72	$79.65
Fossil-Condon	58.6	4.9	$26.67	$55.99

Step 3: Using Wheeler County costs, estimate per trip additional cost to the county, along with paying a driver, and the maximum expected donation to result in total cost to WCCT for additional trips. Expect $5.00 donation for in-county and $10.00 for out-of-county trips.

Trip Pair	Cost by Mileage	Cost by Hours	Driver Cost	Total Additional Cost	Donation	Difference	In/Out County
Spray-Bend	$118.33	$107.57	$115.19	**$233.52**	$50-140	$ (93.52)	Out
Spray-Prineville	$84.65	$88.62	$94.89	**$179.54**	$50-140	$ (39.54)	Out
Spray-Fossil	$38.23	$62.49	$66.92	**$105.15**	$25-70	$ (35.15)	In
Spray-Redmond	$100.12	$97.33	$104.22	**$204.34**	$50-140	$ (64.34)	Out
Mitchell-Prineville	$51.88	$70.18	$75.15	**$127.03**	$50-140	$ 12.97	Out
Mitchell-Bend	$84.65	$88.62	$94.89	**$179.54**	$50-140	$ (39.54)	Out
Mitchell-Fossil	$49.15	$68.64	$73.50	**$122.65**	$25-70	$ (52.65)	In
Mitchell-Redmond	$69.18	$79.91	$85.57	**$154.74**	$50-140	$ (14.74)	Out
Fossil-Bend	$108.32	$101.94	$109.15	**$217.47**	$50-140	$ (77.47)	Out
Fossil-The Dalles	$91.02	$92.20	$98.73	**$189.75**	$50-140	$ (49.75)	Out
Fossil-Madras	$68.72	$79.65	$85.29	**$154.02**	$50-140	$ (14.02)	Out
Fossil-Condon	$26.67	$55.99	$59.95	**$86.62**	$50-140	$ 53.38	Out

Performance Measures

Wheeler County Community Transportation may employ several performance measures to gauge the effectiveness and efficiency of its public transportation services. Service evaluation may include measurement of cost efficiency, service effectiveness, cost effectiveness, and service quality. Table 4-1 provides details on each measurement, which should be evaluated annually to monitor trends associated with existing services and any added services.

Table 4-1: Performance Measures

Measurement	Description	Resources
Cost Efficiency	Measures the operating cost to provide the transit service, including materials, maintenance/repair, insurance, and other applicable operating expenses. Measure cost efficiency by calculating total operating cost per hour or total operating cost per mile. Calculating total operating cost can either include passenger service miles or hours, or not, as long as the same measurement is used consistently over time.	WCCT annual budget - find monthly avg. operating costs; WCCT monthly service miles and service hours report.
Cost/Benefit Analysis	Compares the cost of the service with the cost to the community if service is not provided (i.e. the build vs. no-build alternatives). For example, the benefit of WCCT service is illustrated by the difference in average cost of a medical trip served by WCCT compared to the cost to the individual requiring the service if an alternative such as an ambulance or a neighbor taking time off of work to service the trip demand.	TCRP Report 34: Assessing the Economic Impacts of Rural Public Transportation
Service Effectiveness	Measures the number of passengers served. Measure service effectiveness by calculating passengers per mile or passengers per hour. An alternative measure is passenger revenue per mile or per hour. Passenger revenue per mile or per hour is an effective measure for systems with a set fare, or in WCCT's case, for contract services.	WCCT monthly tracking of service miles, service hours and passengers. Donations are tracked on the same WCCT monthly report, but service contract total should be added, too.

Cost Effectiveness	Expressed in terms of total operating cost per passenger, total subsidy per passenger, or the farebox recovery ratio. Total trip subsidy per passenger is found by subtracting donations/fares received from total operating costs for the trip divided by the number of passengers. The farebox recovery ratio is calculated by dividing total revenues collected by total operating costs.	WCCT annual budget - find monthly avg. operating costs; WCCT monthly report of passengers
Service Quality	Measures how well the service meets customer expectations. This can be expressed in terms of the percent of time vehicles pickup and drop-off scheduled rides on time, number of service miles per accident, and number of service miles per vehicle breakdown. Service quality can also be gauged by seat availability and customer satisfaction.	On-time performance is difficult to monitor with limited staff capacity and without ITS systems that automate on-time data collection. Communication with drivers or periodic driver reports of on-time performance is needed. Track vehicle breakdowns and accidents on monthly reports. Obtain availability and customer satisfaction data via on-vehicle surveys.

An additional process for measuring performance comes from *TCRP Report 161: Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation: Final Workbook,* which suggests collecting the following data for comparisons over time:

- Population of the area served
- Size in square miles of the area served
- Annual vehicle-miles and/or vehicle-hours of service provided
- Nature of the operation (e.g., fixed-route, route-deviation, demand-response)
- Number of one-way trips served (per month, per year)
- Degree of coordination with other carriers

These data enable the monitoring of passenger-trips per capita, passenger-trips per vehicle-mile (by service type), and passenger-trips per vehicle-hour (by service type).