



DATE: March 21, 2018  
TO: Members of the Transportation Technical Committee  
FROM: Mike Tedesco, Spokane Tribe, Chair  
SUBJECT: Agenda for TTC Meeting – Wednesday, March 28, 2018 - 1:30 pm  
**SRTC, 421 W. Riverside Avenue, Suite 504 (The Paulsen Building)**

### AGENDA

1. Call to Order
2. Roll Call / Record of Attendance
3. **Action** - Approval of February 28, 2018 Meeting Minutes Page 2
4. Public Comments
5. Technical Member Comments
6. **Action** – 2018-2021 Transportation Improvement Program April Amendment Page 6  
(*Anna Ragaza-Bourassa*)
7. **Information & Discussion**
  - a) 2019 Unified Planning Work Program (*Greg Griffin*) Page 9
  - b) Human Services Transportation Plan (*Jason Lien*) Page 11
  - c) Bicycle and Pedestrian Count Program (*Jason Lien*) Page 13
  - d) WSDOT & SRTC Performance Measures Target Setting Update (*Eve Nelson*) Page 25
8. TIP Working Group Update
9. Agency Update
10. Future Agenda Items
11. Adjournment Next Meeting: Wednesday, April 25

SRTC is committed to nondiscrimination in accordance with Title VI of the Civil Rights Act of 1964, and Civil Rights Restoration Act of 1987 (P.O. 100.259) and the Americans with Disabilities Act. Reasonable accommodations can be requested by contacting the SRTC office by telephone at (509) 343-6370 or by email at [contact.srtc@srtc.org](mailto:contact.srtc@srtc.org) at least 48 hours in advance.

**MEETING MINUTES**

Spokane Regional Transportation Council Transportation Technical Committee  
 February 28, 2018  
 421 W Riverside Ave Suite 504, Spokane, Washington

**1. Call to Order**

Mr. Mike Tedesco, Chair, called the meeting to order at 1:31 p.m.

**2. Roll Call**

**Committee Members Present**

Mike Tedesco	Spokane Tribe of Indians	Gloria Mantz	City of Spokane Valley
Sean Messner	Spokane County	Mike Basinger	City of Spokane Valley
Derrick Braaten	City of Airway Heights	April Westby	Spokane Regional Clean Air
Todd Ableman	City of Cheney	Heleen Dewey	Spokane Regional Health Dist
Roger Krieger	City of Deer Park	Gordon Howell	Spokane Transit Authority
Louis Meuler	City of Spokane	Larry Larson	WSDOT-Eastern Region
Brandon Blankenagel	City of Spokane	Glenn Wagemann	WSDOT-Eastern Region

**Committee Alternates Present**

Matt Breen	Spokane Intl. Airport	Mike Tressider	Spokane Transit Authority
Barry Greene	Spokane County	Keith Martin	WSDOT

**Guests**

Chris Mansfield	T-O Engineers	Darrel McCallum	WSDOT-Eastern Region
Mark Bergam	City of Airway Heights	Adam Jackson	City of Spokane Valley

**Staff**

Anna Ragaza-Bourassa	Senior Transportation Planner	Sabrina Minshall	Executive Director
Staci Lehman	Communications Coordinator	Jason Lien	Senior Transportation Planner
Mike Ulrich	Senior Transportation Planner	Julie Meyers-Lehman	Administrative Assistant

**3. Approval of January 24, 2018 Minutes**

**Mr. Braaten made a motion to approve the January 24, 2018 minutes as presented. Mr. Basinger seconded the motion, which passed unanimously.**

**4. Public Comments**

There were no public comments.

**5. Technical Member Comments**

Mr. Howell spoke about the Section 5310 Call for Projects, a federal funding grant for projects serving senior citizens and people with disabilities.

Mr. Martin announced that Mike Frucci has changed positions at WSDOT and therefore will no longer be involved with the TTC.

Mr. Blankenagel stated today was the last day of the City of Spokane's online public comment solicitation for the Riverside Avenue project.

Mr. Meuler reported that the City of Spokane, WSDOT and EWU recently held a community charrette regarding NSC Placemaking and additional events are scheduled.

Mr. Larsen announced that Darrel McCallum would be joining the TTC.

Chair Tedesco said the design for the next roundabout on Highway 2 will be going to WSDOT very soon.

## **6. 2018-2021 Transportation Improvement Program March Amendment**

Ms. Ragaza-Bourassa reported that the March amendment consists of 14 projects; some new awards, scope changes and project deletions. The projects are:

- City of Spokane - Spokane St Preservation North
- City of Spokane - Monroe St Lane Reduction & Hardscape, Indiana to Keirnan
- Spokane County - Hawthorne Rd – Nevada to Parksmith
- Spokane County - Country Homes – Cedar to Wall, NB Lanes Only
- Spokane County - Brooks Rd Railway-Highway Crossings Program
- Spokane County - Espanola Rd Railway-Highway Crossings Program
- Spokane County - 2017 County Safety Program-Guardrail
- Spokane County - Wellesley Ave Railway-Highway Crossings Program
- WSDOT- Eastern Region Shoulder Rumble Strip Installation
- WSDOT - US 395/NSC BNSF 2<sup>nd</sup> Railroad Realignment
- WSDOT - US 395/NSC Spokane River Crossing
- WSDOT - US 395/NSC Spokane River to Columbia
- WSDOT US 395/NSC Spokane River to Wellesley
- WSDOT US 395/NSC Wellesley Ave Improvements

She called for questions or discussion on any of the projects and there were none.

**Mr. Blankenagel made a motion to approve the 2021-2018 TIP March Amendment as presented; Mr. Messner seconded. A vote was taken and the motion passed unanimously.**

## **7. Barker Road Grade Separation**

Mr. Jackson provided an update to the City of Spokane Valley's Barker Road/BNSF at Trent Ave Grade Separation project. He described the location and the area zoning. He outlined the project's coordinated planning efforts and reduction of estimated costs since the project's inception. He said in 2017 the City conducted a preliminary analysis to determine the most cost-effective project configuration and six alternatives were identified. Mr. Jackson described each option, said the preferred alternative was a three-leg roundabout at Trent, and the estimated cost is \$19 million.

Mr. Jackson spoke about the project funding, noting how much and from where funding has been secured and how much was still needed. He said the City is confident that the remaining funding can be obtained without missing any secured funding deadlines. He explained the ways in which the project will benefit the community and local economy, as well as regional and national benefits. He noted the project includes the closing of the grade crossing at Flora Road.

He outlined the next steps of the project and then called for questions or discussion; there were none and Chair Tedesco thanked Mr. Jackson for his presentation.

## **8. Call for Projects Update**

Ms. Ragaza-Bourassa noted that the final draft of the application was at each person's place. She reviewed that the three sources of regional funds are Surface Transportation Block Grant Program (STBG), Congestion Mitigation & Air Quality (CMAQ) and STBG Set-Aside (formerly Transportation Alternative Program) and the estimated funding available is: \$27 million for STBG (years 2020-2023), \$10 million for CMAQ (years 2021-

2023) and \$2 million for STBG Set-Aside (years 2021-2023). She defined the types of projects for which each funding source is eligible.

Ms. Ragaza-Bourassa said that, as in past calls, the Board will be asked to take action to fund regional projects off the top and the project application continues to be based on Horizon 2040 Guiding Principles. She described the changes to this call:

- Application consolidated for three funding sources
- Application updated to reflect federal performance measures
- Application refined to provide better score differentiation
- Agencies will be asked to rank their top ten projects
- Safe & Complete Streets checklist reduced
- Board programming direction after scoring of projects

She explained the similarities and differences in the funding process between this call and prior calls. She outlined the decisions the Board will be asked to make at their next meeting; off-the-top funding for SRTC sponsored projects and Spokane Regional Transportation Management Center funding, capital maintenance set-aside for 2022 and 2023, small town minimum percentage or amount, and the requirement for agencies to utilize all available tools to meet project delivery deadlines.

Ms. Ragaza-Bourassa described the four SRTC sponsored projects, which add up to approximately 7.8% of the total available for the call, the Spokane Regional Traffic Management Center request of \$1.83 million, and displayed the call for projects schedule.

The group reviewed the application and the questions, discussed the scoring criteria, and the project selection decision-making process by the Board.

Ms. Ragaza-Bourassa asked the group for input on the suggestion of a small town minimum or dollar amount. She said in the past there was always an effort made to select a small town project, but the Board will be asked to decide on allocating a minimum dollar amount or percentage up front for small towns so they are not competing with Spokane County for rural funds. Mr. Braaten stated he felt the minimum was a good idea but with a caveat that if there end up being no small town project applications, the funds will go back into the general fund.

Concerns were raised about the lack of pre-set funding targets for each project type and the idea of grouping projects into categories after the applications are received. Ms. Ragaza-Bourassa replied that scores are just the starting point for the discussion and this method will create flexibility in the ways projects can be presented before the Board. She said for example, they could be grouped by guiding principles, performance measures, or geography.

The group discussed the subjective nature of the project selection process and several members commented that they were uncomfortable submitting projects without knowing the amount of funding available for each category of project or how the projects would be grouped for presentation to the Board.

Ms. Minshall said investment options are not random; it has always been the case that investment choices must tie to program policies and performance measures. She said the past practice of assigning a certain percentage for certain criteria was not done with any factual basis; it was just historic. She said until such time as all agencies can collectively get to a needs assessment that is data driven for the next long-range plan, there is a limitation with setting percentages. She noted the TAC will be asked to weight the Guiding Principles which is the reason the application does not weight them; additionally, the TTC be asked to assist in grouping and packaging the applications for presentation to the Board.

## **9. Monthly Messaging**

Ms. Lehman reported on the new “monthly messaging” campaign to provide transportation information or a call to action to the public. She said information will be put into a visual format, such as poster-sized infographics, story maps, etc and placed in public places. She noted the TAC provided staff with suggested topics such as roundabouts, biking/walking trails, studded tires, pedestrian collisions and congestion. Ms. Lehman stated that to coordinate with the launch of this year’s construction map, the topic for March is Road Construction.

She asked the group for suggestions of messaging topics and locations in which to place the visuals. Several topics mentioned were interaction between active transportation and vehicles, transportation as a social determinant of health, education about the roadways being for users all modes of transportation, studded tires, and others.

## **10. TIP Working Group Update**

Ms. Ragaza-Bourassa noted the list of obligated projects as of January 31 was the same as of December 31; it is hoped that several projects will obligate in February. She said the list of projects set to obligate this year will be sufficient to exceed the federal obligation target by \$2.2 million.

Mr. Martin spoke about the August 1 obligation deadline and schedules. Ms. Minshall suggested that in the future a change to an earlier obligation deadline may be phased in, possibly starting in 2020.

## **10. Agency Update**

Ms. Lehman spoke about the SRTC 2018 Education Series and the first three scheduled events; March 27 Legislative Session Recap, April 24 Mayor of Oklahoma City Mick Cornett and June 7 panel discussion of roundabouts.

Ms. Ragaza-Bourassa noted that information about a WSDOT Consolidated Grant program was at each person’s place.

## **12. Future Agenda Items**

Ms. Ragaza-Bourassa asked for volunteers to present project updates. Mr. Blankenagel and Mr. Larson said they would explore possible topics.

## **13. Adjournment**

There being no further business, the meeting adjourned at 3:04pm.

---

Julie Meyers-Lehman  
Recording Secretary

## MEMORANDUM

DATE: March 21, 2018

TO: Members of the Transportation Technical Committee

FROM: Anna Ragaza-Bourassa, Senior Transportation Planner

SUBJECT: 2018-2021 Transportation Improvement Program April Amendment

### Summary

Three member agencies have requested an amendment to the 2018-2021 TIP (see **Attachment**). The changes necessitating an amendment are:

- **City of Spokane's Post Street Replacement Bridge** - Name change, formerly Post St. Utility Bridge. Scope change to demolish existing bridge and replace with a new bridge that incorporates vehicles and pedestrians and maintains the utility corridor. Previous scope included only the pedestrian and utility portion. Add newly awarded bridge funds (\$8M) and increased the total project cost to \$17,372,000.
- **City of Spokane Valley's Appleway Trail - Evergreen to Sullivan** - Funds transferred from the Appleway Trail - University to Balfour Park segment of the trail.
- **City of Spokane Valley's Appleway Trail - University to Balfour Park** - Delete project from 2018 TIP. Funds transferred to Appleway Trail - Evergreen to the Sullivan segment of the trail.
- **WSDOT's US 2/Senator Sam Guess Bridge-Special Repair** - Delete project from 2018 TIP. All funds obligated in 2017.

### *TIP Overview*

The TIP is a programming document that identifies specific projects and programs to be implemented during the upcoming four years. Any project with federal funds from the Federal Highway Administration (FHWA) or Federal Transit Administration (FTA), as well as any regionally significant projects, must be included in the TIP. After a TIP has been incorporated into the Washington State TIP (STIP), project changes can be requested by local agencies. Minor changes can be made administratively by SRTC staff. Significant changes must be made through the amendment process, which requires a 10-day public comment period and action by the SRTC Board of Directors.

### Public Involvement

Pursuant to SRTC's Public Participation Plan, this amendment will be published for a 10-day public review and comment period from March 21 through March 30 at 4:00 p.m. Notice of the amendment will be published in the Spokesman Review and on the SRTC website ([www.srtc.org](http://www.srtc.org)) March 21. Public comments received during the public comment period will

be addressed by SRTC staff and presented to the SRTC Board of Directors in their April meeting packet.

### **Policy Implications**

The TIP serves as an important tool in implementing the goals, policies, and strategies identified in Horizon 2040, SRTC's long-range plan. As such, any projects included in the TIP, including projects added through monthly amendments, must be consistent with Horizon 2040. Consistency with Horizon 2040 includes a demonstration of financial constraint and conformity with regional air quality plans. The February amendment has been reviewed by SRTC staff for compliance with federal and state requirements and consistency with Horizon 2040.

### **Technical Implications**

TIP amendments must be approved by the SRTC Board in order to be incorporated into the Washington State TIP (STIP). Projects receiving federal funds must be in both the TIP and the STIP to access those funds.

Pending approval by the SRTC Board, the April amendment will be incorporated into the STIP on or around May 18.

### **Prior Committee Actions**

This item is being presented to the TTC for the first time.

### **Requested Action**

Recommendation for SRTC Board approval of the April amendment to the 2018-2021 TIP, as shown in the **Attachment**.

2018-2021 Transportation Improvement Program  
April Amendment (18-04)

Agency	Project Title Amendment Description	Funding Adjustment		Amendment	
				New Project	Existing Project
1 Spokane	<b>Post Street Replacement Bridge</b> Name change, formerly Post St. Utility Bridge. Scope change to demolish existing bridge and replace with a new bridge that incorporates vehicles and pedestrians and maintains the utility corridor. Previous scope included only the pedestrian and utility portion. Add newly awarded bridge funds (\$8M) and increased the total project cost from \$8,857,000 to \$17,372,000.	STP(BR)	\$8,000,000		✓
		Local	\$1,527,000		
		<u>Total</u>	<u>\$9,527,000</u>		
2 Spokane Valley	<b>Appleway Trail - Evergreen to Sullivan</b> Transfer funds from the Appleway Trail - University to Balfour Park segment of the trail.	TAP	\$198,950		✓
		CMAQ	\$449,800		
		Local	\$101,250		
		<u>Total</u>	<u>\$750,000</u>		
3 Spokane Valley	<b>Appleway Trail - University to Balfour Park</b> Delete project from 2018 TIP. Funds were transferred to the Appleway Trail - Evergreen to Sullivan segment of the trail.	TAP	-\$198,950		✓
		CMAQ	-\$449,800		
		Local	-\$101,250		
		<u>Total</u>	<u>-\$750,000</u>		
4 WSDOT	<b>US 2/Senator Sam Guess Bridge - Special Repair</b> Delete project from 2018 TIP. All funds obligated in 2017.	NHPP	-\$182,327		✓
		State	-\$3,721		
		<u>Total</u>	<u>-\$186,048</u>		

CMAQ Congestion Mitigation & Air Quality Program  
NHPP National Highway Performance Program  
STP(BR) Surface Transportation Program Bridge  
TAP Transportation Alternatives Program

**MEMORANDUM**

DATE: March 21, 2018  
 TO: Members of the Transportation Technical Committee  
 FROM: Greg Griffin, Administrative Services Manager  
 SUBJECT: SFY 2019 SRTC Unified Planning Work Program (UPWP)

**Summary**

The Unified Planning Work Program (UPWP) contains information about the transportation planning projects that will be conducted in the Spokane region during a given state fiscal year (SFY). It is a federal and state required document as well as a fundamental tool that spells out the core functions, planning studies, technical support and ongoing planning activities that are being conducted by the agency. The UPWP also lists the federal, state and/or local funding sources for each identified task.

We are working on incorporating our budget into the UPWP in order to clearly delineate the link between agency activities and revenue and expenditures. This is the first step in aligning our UPWP fiscal year and our budget fiscal year

SRTC has entered the initial phase of developing the Fiscal Year (SFY) 2019 UPWP; please refer to the SFY 2019 UPWP development schedule below for an overview of upcoming dates.

<b>SRTC SFY 2019 UPWP Development Schedule</b>	
<b>Key Due Dates</b>	<b>Key Action Due</b>
March 8, 2018	SFY 2019 UPWP Overview provided to SRTC Board
March 20, 2018	Preliminary draft SFY 2019 UPWP to WSDOT TRCO
March 28, 2018	Preliminary draft SFY 2019 UPWP to TTC
April 23, 2018	Preliminary draft SFY 2019 UPWP to TAC
<b><u>May 3, 2018</u></b>	<b><u>Comments due from committee members on preliminary draft</u></b>
May 16, 2018	On-site review meeting with WSDOT TRCO, Public Transportation Division, WSDOT, FHWA, and FTA
May 11, 2018	Final draft SFY 2019 UPWP presented to Board
May 22 and 24, 2018	TAC and TTC recommendation of Board approval of preliminary draft SFY 2019 UPWP
June 8, 2018	Board approval of SFY 2019 UPWP
June 16, 2018	Approved SFY 2019 UPWP submitted to WSDOT TRCO.
June 21, 2018	WSDOT TRCO submits approved SFY 2019 UPWP to FHWA/FTA
June 30, 2018	FHWA/FTA UPWP approval date
July 1, 2018	SFY 2019 UPWP takes effect

For the past two years, the UPWP has focused on SRTC's core functions that meet the federal Metropolitan Planning Organization (MPO) and state Regional Transportation Planning Organization (RTPO) requirements. In addition, this UPWP will expand beyond our core functions to include emerging transportation planning needs and issues as identified in Horizon 2040.

For purposes of interagency coordination, SRTC's SFY 2019 UPWP will also include major planning activities identified by Spokane Transit Authority (STA) and the Washington State Department of Transportation (WSDOT) Eastern Region in a separate appendix. Additionally, staff will coordinate with local agencies on upcoming projects or studies for possible inclusion in the UPWP.

### **Public Involvement**

The SFY 2019 SRTC UPWP will be presented and discussed at future Transportation Advisory Committee (TAC), Transportation Technical Committee (TTC) and SRTC Board meetings, which are open to the public.

### **Policy Implications**

The purpose of the UPWP is to meet the federal MPO unified planning work program requirements as well as the state RTPO work program requirements. The UPWP also fosters regional coordination and collaboration on proposed planning activities over the next state fiscal year (July 1 – June 30).

### **Technical Implications**

In spring of 2018, the WSDOT Transportation Planning Office, Public Transportation Division, and Eastern Region Planning Office, along with the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA), will conduct a review of the SFY 2019 UPWP. SRTC is required to send the draft FY 2019 UPWP to the review committee by March 20, 2018. After Board approval in early June, the UPWP will be submitted to WSDOT who will in turn submit it to FHWA and FTA for approval by the end of June. The SFY 2019 UPWP will be in effect beginning July 1, 2018.

### **Prior Committee Actions**

None.

### **Requested Action**

For information and discussion.

## MEMORANDUM

DATE: March 21, 2018

TO: Members of the Transportation Technical Committee

FROM: Jason Lien, Senior Transportation Planner

SUBJECT: Human Services Transportation Plan

### **Summary**

Spokane Regional Transportation Council, in coordination with Spokane Transit Authority (STA), will be updating the Coordinated Public Transit - Human Services Transportation Plan over the next few months. The plan will address transportation services for persons with disabilities, older adults, and individuals with lower incomes by coordinating transportation resources provided through multiple federal and state programs as well as developing a project list. The goal is to enhance transportation access, minimize duplication of services, and facilitate the most appropriate cost-effective transportation services with available resources. The plan was last updated in 2014, and this update will comply with state and federal requirements for human services transportation coordination.

A key component of the work effort is collaboration with service providers and transit users to identify unmet needs in human services transportation. Key stakeholders are organizations/agencies serving populations that require transportation services beyond the conventional transit system, including service in rural areas. These include STA, Care Cars, DAV Transportation Network, KALTRAN, Precious Cargo, Special Mobility Services, and Spokane Tribe among others. With multiple service providers, a goal of the planning effort is to coordinate various programs and resources in ways that provide more efficient service to end users. It is also very important to hear from the transit users themselves, and outreach efforts will be an ongoing focus in the coming months. A working group kick-off meeting will be held at SRTC on Thursday, March 29, 2018.

The plan will be completed by early Fall 2018. Plan development includes creation of a prioritized project list that will inform WSDOT's Consolidated Grant Program. The grant program is a competitive application process to distribute both state and federal funds for eligible public transportation. Public agencies, nonprofit organizations, tribal governments, and other local governments may apply.

### **Public Involvement**

The work program will include public outreach efforts, particularly to persons who need and use special transportation services.

**Policy Implications**

None. This is a required update of an existing plan.

**Technical Implications**

None.

**Prior Committee Actions**

None.

**Requested Action**

No action requested. This item is for information and discussion.

## MEMORANDUM

DATE: March 21, 2018

TO: Members of the Transportation Technical Committee

FROM: Jason Lien, Senior Transportation Planner

SUBJECT: Regional Bicycle and Pedestrian Count Program

### **Summary**

SRTC has been investigating implementation of a Regional Bicycle and Pedestrian Count Program. The Regional Bicycle and Pedestrian Count Program is currently an unfunded item in the Unified Planning Work Program (UPWP). The purpose is to measure bicycle and pedestrian trips at targeted locations in the transportation system. The program would benefit planning decisions by providing useful data for the following region-wide efforts:

- Measuring the use of a pedestrian or bicycle facility
- Measuring the change in pedestrian or bicycling activity following the development or improvement of a facility
- Providing data for economic impact and public health studies and initiatives
- Providing data for project prioritization
- Informing transportation and land use planning and policy
- Providing data for funding and facility design decisions
- Providing data for developing and validating multimodal travel demand models

SRTC must make a decision on the practical scope of such a program and how to phase in its implementation. A draft report of possible program elements is attached, including illustrative cost estimates. The attachment is meant to provide additional background information and not serve as a specific recommendation.

### **Public Involvement**

None at this time.

### **Policy Implications**

The program could track progress toward meeting bike and pedestrian policy objectives.

### **Technical Implications**

Development of a count program would assist in measuring bicycle and pedestrian activity and system performance. It could assist in prioritizing infrastructure investments. Creation of baseline active transportation data tantamount to regional vehicular ADT is a stepping stone to more data-driven decision making. The count program would help gauge the effectiveness of programs (e.g. Safe Routes to School) and projects (e.g. before/after evaluations). Program management would entail deciding count locations (either permanent or temporary),

set-up, installation, and maintenance of counter equipment, coordination with member jurisdictions, and data reporting.

**Prior Committee Actions**

The TTC was briefed on bike and pedestrian count practices and programs in January 2016 to determine the TTC's level of interest. TTC members at the time indicated support for this type of project at the regional level, specifically to gather data they currently do not have to support project justification and economic development activities.

**Requested Action**

Recommend preference for initiating the program. The preferred program, including equipment, installation, and maintenance costs, will be submitted through SRTC's current Call for Projects solicitation.

# SRTC Regional Bicycle and Pedestrian Count Program - DRAFT

**Spokane Regional Transportation Council (SRTC)**

**3/16/2018**

## Table of Contents

<b>Purpose</b> .....	<b>3</b>
<b>Count Type Selection</b> .....	<b>4</b>
<b>Count Location Selection</b> .....	<b>5</b>
<b>Counter Type Selection</b> .....	<b>5</b>
<b>Partnerships</b> .....	<b>6</b>
<b>Installation</b> .....	<b>6</b>
<b>Maintenance</b> .....	<b>7</b>
<b>Data Collection Responsibilities</b> .....	<b>7</b>
<b>Potential Funding</b> .....	<b>8</b>
<b>Estimated Budget Needs</b> .....	<b>9</b>
<b>Resource List</b> .....	<b>10</b>

## Tables

<b>SRTC Regional Bicycle and Pedestrian Count Program Budget Estimate – Permanent Counters</b> .....	<b>9</b>
--	----------



### Why Count?

The purpose behind SRTC's proposed *Regional Bicycle and Pedestrian Count Program* is to measure bicycle and pedestrian trips at targeted locations in the transportation system. The program would benefit planning decisions by providing useful data for the following region-wide efforts:

- Measuring the use of a pedestrian or bicycle facility
- Measuring the change in pedestrian or bicycling activity following the development or improvement of a facility
- Providing data for economic impact and public health studies and initiatives
- Providing data for project prioritization and transportation and land use policy and planning;
- Providing data for funding and facility design decisions; and
- Providing data for developing and validating multimodal travel demand models <sup>1</sup>



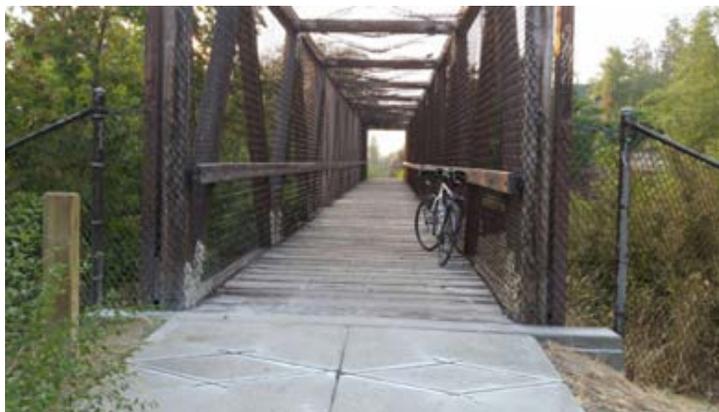
Current data collection tools in the region include:

- Census commute to work survey (annual)
- CTR commute to work survey (annual)
- 2006 & 2010 SRTC Survey
- WSDOT Permanent Statewide Bike Count Project (permanent counters located across the state; no factoring)
- WSDOT Bicycle and Pedestrian Documentation Project as part of the National Bicycle and Pedestrian Documentation Project (annual, three-day manual bicycle and pedestrian counts)
- 2 Children of the Sun Trail permanent bicycle and pedestrian counters
- 1 Centennial Trail permanent bicycle and pedestrian counter
- 1 Ben Burr Trail permanent bicycle and pedestrian counter

SRTC is also exploring purchase of location-based/GPS vendor data. This data is drawn from mobile devices, cellular networks, and vehicle navigation systems. While the data can aggregate vehicular trips from "big data," it has the potential to indicate bike and pedestrian trips as well. This technology is an emerging field, however, and currently not a viable sole-source for bike and pedestrian data.

---

<sup>1</sup> Multimodal travel demand modeling is an emerging field, which has the potential to estimate pedestrian and bicycle demand over a large transportation network. Such a model could be used to: estimate multimodal demand over a large network with limited new data collection, estimate the influence of infrastructure changes on travel behaviors, and project future multimodal demand. ([http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_797.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_797.pdf))



### Count Type Selection

SRTC is proposing the development of a regional non-motorized count program to add to the existing Children of the Sun Trail, Centennial Trail, and Ben Burr Trail counters within the City of Spokane. SRTC is considering three different types of counters for its count program: permanent counters, short duration counters, and special request counters.

A **permanent count program** provides important baseline data to assist in estimating annual average bicycle or walk trips. The permanent counters provide year-round counts and develop monthly/seasonal adjustment factors to permit the use of short-duration counts at different locations, which can then be annualized in a way that minimizes error. Permanent counts would provide:

1. Average daily bicycle trips and/or average daily walk trips
2. Annual bicycle and/or walk trips
3. Weekday vs. weekend data
4. Types of trips based on time of day
5. Changes in trip volume over significant periods of time (years)

SRTC suggests that 9-18 new permanent counters be installed to build out the program.

Since it's not feasible to have permanent counters everywhere, a **short duration count program** allows for more geographic coverage to develop counts and trends at rotating locations. Typically, short duration counts are on a 3-year cycle, meaning selected location counts would repeat after the 3<sup>rd</sup> year. Adjustment factors developed by the permanent count program are applied to the short duration counts to help yield the same information (1-5 above).

SRTC suggests a full program establish ten short duration counts/year throughout the region, meaning 30 locations are counted every three years. This increases the robustness of the overall data set for trend analysis.

**Special Request Counts** are those that are selected for counting due to a safety issue or upcoming project. Again, adjustment factors developed by the permanent count program are applied to the special request counts to help yield the same information as 1-5 above.

As it is not possible to install permanent counters at every location, continuous count data from the permanent sites would be used to create monthly, daily and even hourly expansion factors which can be applied to the short duration counts. These factors allow for estimation of the annual average daily bicycle and/or pedestrian (AADBP) traffic at locations where counts are only available for shorter durations. There are many sources of error in this methodology, but it is the best option available for creating these factors without permanent counters at all sites.

### Count Location Selection

SRTC considered the following criteria in selecting potential count locations in coordination with local jurisdictions and the Washington Department of Transportation (WSDOT) Eastern Region:



- Differentiation between permanent and temporary duration sites
- Selection of at least two or three geographically representative permanent sites for the following factor groups: Downtown Bike Lane, Downtown Sidewalk, Multimodal Corridor Bike Lane, Sidewalk Near Activity Center, and Shared Use Trail
- Existing counter locations
- Areas of perceived high usage (recreational and commuting)
- Areas planned for future bicycle/pedestrian infrastructure and/or transit oriented development (TOD) or otherwise dense, multimodal development
- Locations with major access points and where few bicycle path alternatives exist
- Locations in residential areas that are near schools or parks
- Locations in downtown areas that are near transit
- Locations in employment areas on main access road or near shared use trail

### Counter Type Selection

SRTC will choose counter types based, in part, on their ability to suit the needs of the chosen location. SRTC will consider the following characteristics of common automated pedestrian and bicycle counting technologies:

- Equipment cost, installation time, data collector training time, mobility, pavement cut requirement and cost
- Type of users counted and characteristics collected
- Types of sites (on-road, sidewalk, shared path, etc.)
- User volume, detection zone width, count duration
- Testing and adjustment options, theft-resistance and durability, product use/battery life, data storage capacity, downloading capability, database creation process, options for converting data into a usable format, data cleaning options, and data accuracy and consistency
- Out-of-the-box readiness, installation complexity, necessity to hire a contractor, purchase vs. lease, warranty, performance history, data downloading and formatting software and assistance, and installation and calibration support



SRTC will consider the Eco-Counter brand purchased by WSDOT for the existing four permanent counters within the City of Spokane, to promote technology consistency across the region.

### Partnerships

SRTC, in coordination with the jurisdiction that will own the counter, will consider the following as it relates to necessary stakeholder coordination for successful implementation of the program.

- MOAs with Avista, WSDOT, jurisdictions, entity providing counters as part of a grant program, etc.
- Obtaining permissions from the appropriate stakeholders
- Agreements with those who own ROW, buildings, poles, etc.
- Needed permits
- Informal email versus formal approval requirements

### **WSDOT Permanent Statewide Bike Count Project**

In fall 2015, SRTC began coordinating with local jurisdictions, WSDOT Eastern Region and WA Bikes to submit a request for no-cost Eco-Counter bicycle counters as part of a statewide bicycle counter distribution program overseen by WSDOT and WA Bikes and funded by the Bicycle and Pedestrian Safety Grant Program. To be eligible for participation in this program, applicants must identify proposed counter locations that are geographically representative and that include a variety of infrastructure types. Applicants must also demonstrate the ability to fund installation and maintenance. Loop detector installation is expected to take place at two selected locations in Spring 2018. Those locations are on Main Street east of Howard Street and on the Palouse Highway west of Regal Street.

### **Downtown Spokane Partnership (DSP)**

In Fall 2015, SRTC began coordinating with DSP on marketing, educational outreach, and cost sharing for the installation of pedestrian counters in downtown Spokane in response to demand from prospective businesses for pedestrian counts in the proximity of potential development sites.

### Installation

SRTC will consider the following best practices when assisting a jurisdiction with counter planning and installation:

- Creating site plan/diagram of planned installation and intended detection zone on an aerial photograph
- Hiring contractor if needed or securing local agency (i.e. WSDOT) to provide needed resources and installation services or securing jurisdictional staff to do installation
- Training contractor or staff on best practice installation methods if needed
- Arranging on-site coordination meeting with staff from installation company/agency, permitting staff, contractor, vendor representative, etc.
- Checking for problems with location that may affect particular counting technologies and their results (interference from utility wires, construction projects, hills, sharp curves, animal activity, detection zone width, facility surface, general



security, built or social environment characteristics that may create non-standard walking or biking movements (driveways, doorways, bus stops, bicycle racks, hangout areas etc.))

- Inventorying and preparing devices for installation
- Installing and validating devices
- Calibrating devices (making sensors more or less sensitive) and checking counts right after installation, then 2-3 days after

## Maintenance

SRTC will coordinate with jurisdictions to ensure that there is a plan for ongoing maintenance that designates a device check and clean every 3-6 months, an accuracy test at least once per year, and periodic battery purchase and replacement.



Eco-Display Counter

## Data Collection Responsibilities

SRTC proposes the permanent count data be transmitted electronically monthly and monitored by SRTC where it would be available to the member jurisdictions and the public. The short duration counts will be collected on site by an SRTC employee.

In addition to monitoring the data, the SRTC will be responsible for the following:

- Cleaning the data (looking for strange dips or jumps)
- Correcting the data (applying a percentage increase or decrease to correct for undercounting or overcounting)
- Expanding or extrapolating the data (i.e. 1 day count becomes an estimate for 1 week)
- Reviewing data to identify problems (blocked sensor, multiple counts of same person, equipment malfunction, incorrect installations)
- Developing correction factors:
  - Site-specific correction factors (used when conducting manual counts and comparing to the automated counter data results)
  - Temporal adjustment factors (used to account for peaking patterns/uneven distribution of bicycle/pedestrian counts)
  - Weather adjustment factors (used to adjust counts based on weather patterns for the day with knowledge about dips and jumps in trips during different weather)



## Potential Funding

SRTC will identify partnerships with member jurisdictions, agencies and other entities and will explore funding through the federal and state programs described below.

### **WSDOT Active Transportation Programs**

This program provides technical services and funding assistance in support of active transportation and is the umbrella program for WSDOT Local Programs, Pedestrian and Bicycle Program, and Active Community Environments.

### **WSDOT Local Programs Division**

- Provides financial and technical support to public agencies
- Serves as the steward of Federal Highway Administration (FHWA) funding; administering and managing federal and state funds
- Prioritizes promoting livable communities

### **Pedestrian and Bicycle Program**

- Two types of projects are eligible for this funding program: Project development/planning and construction projects

### **SRTC Call for Projects (2018)**

- Surface Transportation Block Grant Program, formally Surface Transportation Program (STP)
- Surface Transportation Block Grant Program-Set Aside, formally Transportation Alternatives Program (TAP)

### **Additional Potential Funding Opportunities:**

- Active Community Environments program (part of WSDOT Active Transportation Programs)
- Complete Streets funding programs
- Safety and health-related funding programs
- Future WA Bikes grant opportunities
- Jurisdiction and SRTC budgets and planned preservation projects
- Additional federal and state grants
- Private business, advocacy group, and non-profit funding partnerships

**Estimated Budget**

In coordination with its partners, SRTC developed an estimated budget for the *SRTC Regional Bicycle and Pedestrian Count Program*. The table below is an illustrative example of a fully built-out permanent count program—the estimated budget reflects 18 permanent counters. The table following this one illustrates estimated costs for 5 mobile short-duration counters.

SRTC Budget Estimate – Permanent Counters						
Location Types (Factor Groups)	Number of Counters	Estimated Cost of Counter	Estimated Install Materials	Estimated Install Hours at 10 Hours/Counter	Estimated Annual Maintenance	Estimated Total Cost (purchase, install and first year of maintenance costs)
Downtown Bike Lane	4(2 sets of uni-directional counters)	\$10,220 (\$2,555x4)	included	\$12,000 (\$3000 x 4)	\$1680 data transmission (\$420x4 locations)	\$23,900
Downtown Sidewalk	3 (3 bi-directional counters)	\$10,425 (\$3,475x3)	\$1,000 (3 counters)	\$3168 18 hours x (staff (2) hourly)	\$1,260 (\$420 x 3 locations)	\$15,853
Multimodal Corridor Bike Lane	6 (3 sets of uni-directional counters)	\$17,130 (\$2855x6)	included	\$12,000 (\$2000 x 3)	\$2,520 (\$420 x 6 locations)	\$31,650
Sidewalk Near Activity Center	3 (3 bi-directional counters)	\$10,425 (\$3,475x3)	\$1,000 (3 counters)	\$3168 18 hours x (staff (2) hourly)	\$1,260 (\$420 x 3 locations)	\$15,853
Shared Use Trail (combined bike/ped)	2 (1 combined bike/ped uni-directional counters and one DISPLAY counter)	\$11,920 (\$5,960x2)	\$1,200 (\$600x2)	\$6000 (\$3000 x 2)	\$840 (\$420 x 2 locations)	\$19,960
<b>Total</b>	<b>18</b>	<b>\$60,120</b>	<b>\$3,200</b>	<b>\$36,336</b>	<b>\$7,560</b>	<b><u>\$107,226</u></b>



**Short-duration count program**

Location Types (Factor Groups)	Number of Counters	Estimated Cost of Counter	Type of Counter	Estimated Install Hours at Per Counter	Estimated Labor Cost Throughout the year	Estimated Total Cost (purchase, install and first year of maintenance costs)
Sidewalk/ Pedestrian environment	2	\$7,000 (\$3,500x2)	PYRO sensor	2	200 (@ \$85 with overhead) \$17,000	\$7,000 plus staff time. Requires post or structure to mount on.
Bike Lane or Trail	2	\$6,000 (\$3,000x2)	Pneumatic tubes	1	200 (@ \$85) \$17,000	\$6,000 plus staff time
Shared use trail	1	\$4,800	Post needed. Combines PYRO sensor with tubes	3	80 (@ \$85) \$6800	\$4,800 plus staff time and may need post install
<b>Totals</b>	<b>5</b>	<b>\$17,800</b>			<b>\$40,800</b>	<b>\$58,600</b>

[Resource List](#)

2014 National Cooperative Highway Research Program (NCHRP) Report 797: Guidebook on Pedestrian and Bicycle Volume Data Collection)

2014 National Cooperative Highway Research Program (NCHRP) Web-Only Document 205: Methods and Technologies for Pedestrian and Bicycle Volume Data Collection

**MEMORANDUM**

DATE: March 21, 2018  
 TO: Members of the TTC  
 FROM: Eve Nelson, Senior Transportation Planner  
 SUBJECT: WSDOT & SRTC Performance Measure Target Setting Update

**Summary**

The deadline for Washington State Department of Transportation (WSDOT) to set several statewide transportation performance measure targets is quickly approaching. The targets will fulfill federal requirements that were established in federal final rules in 2016 and 2017. By May 20, WSDOT must establish targets for the following performance measures:

**Bridge Condition**

Performance Measures
% of National Highway System (NHS) bridges by deck area in Good condition
% of NHS bridges by deck area in Poor condition

**Pavement Condition**

Performance Measures
% of Interstate pavements in Good condition
% of Interstate pavements in Poor condition
% of non-interstate NHS pavements in Good condition
% of non-interstate NHS pavements in Poor condition

**System Performance & Freight**

Performance Measures
% of person-miles travelled on the interstate that are reliable
% of person-miles travelled on the non-interstate NHS that are reliable
Truck Travel Time Reliability (TTTR) index

**Congestion Mitigation & Air Quality Improvement (CMAQ)**

Performance Measures
Annual hours of peak hour excessive delay
% of non-single occupancy vehicle (SOV) travel
Total emission reduction

The latest interpretation from WSDOT via FHWA is that targets are more of a projected condition or expectation rather than an attempt to explicitly move the needle beyond our current expectations.

SRTC staff have been participating in WSDOT target-setting collaboration meetings over the past three years. These meetings focus on acquiring data sources and sharing the same data amongst the state's MPOs to aid in target setting. WSDOT develops their own target setting methods and then shares those with the collaboration group. We do know in the areas of bridge and pavement conditions, WSDOT is using the asset management process as a method to inform their target setting. It is not yet known what method is being used for system performance and freight target setting.

Per federal requirements, SRTC will have 180 days after WSDOT sets our regional targets with Board of Directors approval. SRTC did set a quantitative safety target with the adoption of Horizon 2040. **However, for the remaining targets SRTC can choose to set quantitative targets of simply agree to the statewide targets through a SRTC Board resolution.**

We are seeking a small working group to help:

- 1 Assess the options to set quantitative targets or agree to state targets; and
- 2 Select a few targets set by Spokane Transit Authority to carry forward in our performance management plan.

### **Public Involvement**

Stakeholder workshops, surveys and meetings include members of the public have been ongoing since 2015 regarding performance measure development at the regional level.

### **Policy Implications**

Establishing a performance management process intends to provide more objectivity in developing, implementing, and measuring the effectiveness of future transportation projects and programs.

### **Technical Implications**

The SRTC Board has three key responsibilities under federal surface transportation regulations that are directly related to the Horizon 2040 Implementation Toolkit. First, the Board is responsible for selecting projects for Surface Transportation Block Grant Program-Regional (STBG-Regional) funds, STBG-set aside funds and Congestion Mitigation and Air Quality (CMAQ) funds. Second, the Board is responsible for ensuring that all federally funded transportation projects are consistent with Horizon 2040. Third, the Board is responsible for determining that all regionally significant transportation projects meet air quality conformity requirements.

### **Prior Committee Actions**

The SRTC Board Approved Horizon 2040 and the safety performance targets on December 14, 2017.

### **Requested Action**

For information and discussion.