



King County

Annual Report

Transportation Concurrency Management Program

2009 Annual Update

Introduction

Since 1995, the King County Department of Transportation’s Transportation Concurrency Management (TCM) Program has been reviewing development proposals for compliance with the 1990 Growth Management Act (GMA), and to satisfy the concurrency policy of the King County Comprehensive Plan and the corresponding requirements of (RCW) 36.70A.070(6)(e). The purpose of this Annual Report on TCM is to satisfy King County Code 14.70.270.B, which requires an annual report explaining the technical assumptions and parameters used to update the concurrency map that serves as the county’s basis for determining concurrency.

Major Changes and Findings

There are three main changes to the TCM program in 2009:

- 1) The Road Services Division (RSD) has implemented a new, more efficient and accurate travel time data collection process using state-of-the-art Global Positioning System (GPS) and Geographic Information System (GIS) technology. A full description of this methodology is in the attached Technical Appendix.
- 2) In 2009, only four travel sheds are now failing the concurrency test versus six in 2008.
- 3) A list of potential road improvement projects that will bring failing travel sheds back into compliance with concurrency standards has been developed.

Summary of Results

Concurrency Testing Results

The 2009 transportation concurrency test results are shown on the attached table titled *2009 Transportation Concurrency Test By Travel Shed*. The failing travel sheds are marked by crosshatching on the attached map titled *Transportation Concurrency, Attachment A*, which is proposed to be adopted by ordinance by the King County Council. Data was collected on principal and minor arterials and on designated state highways that function like county arterials. Travel sheds with more than 15 percent of total mileage failing concurrency level of service (LOS) standards are then identified as failing in this analysis.

2009 Failing Travel Sheds

Travel Shed	Location	Percentage of Travel Shed Miles Failing	Failing Travel Shed Routes	Total Travel Shed Routes
Green River Valley (5)	Southwest King County	22.62%	2 (**)	8
Sammamish Valley (9)	Northeast King County	42.86%	3 (*, **)	7
Novelty Hill (11)	Northeast King County	18.82%	2	16
Newcastle/East Renton (12)	Central King County	16.58%	2 (*)	12

* State Highways involvement
 ** City involvement

Four of the route failures are on state highways and four of the key intersections are located within city limits or involve cities on one or more legs of the intersection, so much of the congestion is out of the control of King County. Also important is that all four travel sheds are predominantly designated rural

areas. The routes that fail in the rural travel sheds are failing the rural LOS standard (B). Several of the rural roads with failing routes connect two urban areas. For example, State Route 900 in the Newcastle/East Renton Travel Shed connects the City of Renton and the City of Issaquah. This road carries urban commuter traffic through the designated rural area. No urban portions of the roads in any of the four travel sheds are failing the concurrency standard.

The four travel sheds in the table titled *2009 Failing Travel Sheds* are failing because of high traffic volume and congestion at key intersections shown on the attached map titled *Corridors Causing Travel Shed Concurrency Failures*.

- In the Green River Valley Travel Shed, congestion along South 277th Street at 83rd Avenue South and at West Valley Highway approaching State Route 167 is causing two routes (shown on the map as 1 and 2) to fail concurrency rural LOS standards.
- In the Sammamish Valley Travel Shed, congestion along State Route 202 at NE 124th Street (southbound) and at NE 145th Street (northbound) is causing three routes (3, 4 and 5 on the map) to fail the rural LOS standard B.
- In the Novelty Hill Travel Shed, congestion eastbound approaching 208th Avenue NE on Novelty Hill Road and westbound approaching the intersections at Bear Creek Road and Avondale Road on NE 133rd/132nd Street is causing those roadways (6 and 7 on the map) to fail the rural LOS standard B.
- In the Newcastle/East Renton Travel Shed congestion at the intersection on State Route 900 at 164th Avenue SE is causing the routes (8 and 9 on the map) to fail the rural LOS standard B.

Of the remaining twenty-one travel sheds passing the concurrency test, twenty passed by more than 90 percent. Only one is within 5 percent of failing the test – rural Vashon Island (1) at 88.51 percent passing. All rural mobility areas: Rural Towns (Fall City, Vashon, Snoqualmie Pass) LOS E standard, and selected Rural Neighborhood Commercial Centers (Cumberland, Cottage Lake, Maple Valley, Preston) LOS D standard, passed the concurrency test.

Comparisons of 2009 to 2008

In 2008, six travel sheds failed the transportation concurrency test, while only four travel sheds fail in 2009. The two travel sheds now passing in 2009 are Woodinville (10) and Duvall (16). The Woodinville Travel Shed was failing with 15.17 percent of the road mileage not meeting standards in 2008, but is now passing with only 8.77 percent road failure. This is due to faster travel time and speed LOS changes on Avondale Road and Novelty Hill/NE 124th Street. The Duvall Travel Shed was failing 25.74 percent in 2008, but now has 100 percent of the mileage passing in 2009. This change is due to portions of State Route 203 and NE 124th Street meeting the King County concurrency LOS standard in 2009.

An analysis of the concurrency and LOS changes for 2009 indicate they are related to transportation trends in the Seattle Metropolitan region. A combination of factors, from the economic downturn to high gas prices, seems to be altering commuting habits and reducing traffic volumes and travel times on the roadways. The Washington State Department of Transportation (WSDOT) during 2008 and early 2009 studied travel time (“Economic Downturn Reduces Travel Demand in the Central Puget Sound,” by the Washington State Transportation Center, April 2009, <http://tinyurl.com/ntw29k>) on area freeways and found travel times during commute hours are down on a majority of routes. This mirrors a national trend identified by the 2009 Urban Mobility Report published by the Texas Transportation Institute http://mobility.tamu.edu/ums/media_information/press_release.stm.

King County’s 2009 traffic count data also support the apparent trend towards reduced driving and faster travel times. In March and April, the same months the concurrency program collected travel time data,

the RSD Traffic Engineering Section collected traffic counts on thirteen arterials throughout King County for which travel time data was collected. Traffic counts show a 3.0 percent to 20.8 percent decrease in average daily traffic volume. Only Novelty Hill Road showed an increase in traffic volume.

Identification of Needed Transportation Improvements

A component of the TCM program is the identification of potential transportation improvements needed to bring the failing travel sheds back into compliance, with emphasis on the road corridor segments that cause the travel sheds to fail. The failing travel sheds and their failing routes are illustrated in the attached map titled *Corridors Causing Travel Shed Concurrency Failures*. Also attached is a *Summary Table Project List for Achieving Concurrency Compliance in Failing Travel Sheds*, which identifies the problem locations including possible road improvements to solve the problems, preliminary estimated costs, and priorities. More information on how needed improvements were determined is contained in the Technical Appendix. Several of the potential road improvements to address transportation concurrency failures within the unincorporated area are on state highways or are within cities and will be communicated by RSD to these jurisdictions.

Progression to the 2010 Annual Report

There are a number of large annexation proposals scheduled for a vote in 2009, and if passed, would take effect in 2010 and 2011. These are Juanita/Finn Hill/Kingsgate (Kirkland), Panther Lake (Kent), and North Highline south portion (Burien). The Fairwood incorporation vote is also on the ballot. The 2009 concurrency pass/fail status of all the travel sheds would not change if the annexations and incorporation were to take affect in 2010.

In 2010, the TCM program will be reviewed to identify ways to improve the process while also maintaining consistency to better compare data gathered from year to year. The RSD will be investigating ways to improve travel shed characteristics, which may involve review of travel shed boundaries, route lengths, prioritization of corridors for sampling, etc., with the target year of 2012 (King County Comprehensive Plan update) for significant changes. Strengthening the program may also involve ways to increase the multi-modal aspect of concurrency, implementation of the Climate Change Initiative, and integrating an updated Mitigation Payment System program more directly with concurrency.

2009 Transportation Concurrency Test by Travel Shed

August 27, 2009

Travel Shed	Geographic Identifier	Total Travel Shed Mileage	Travel Shed Total Failed Mileage	Percent Travel Shed Failing Standards	Travel Shed Concurrency Test (85% Compliance)
1	Vashon	26.11	3.00	11.49	PASS
2	White Center	11.07	0.25	2.26	PASS
3	West Hill	5.06	0.00	0.00	PASS
4	North Federal Way	5.54	0.00	0.00	PASS
5	Green River Valley	4.42	1.00	22.62	FAIL
6	SE Federal Way	5.94	0.00	0.00	PASS
7	Soos Creek	39.92	0.66	1.65	PASS
8	Juanita/Kingsgate	12.31	1.00	8.12	PASS
9	Sammamish Valley	5.53	2.37	42.86	FAIL
10	Woodinville	20.30	1.78	8.77	PASS
11	Novelty Hill	15.41	2.90	18.82	FAIL
12	Newcastle/East Renton	14.11	2.34	16.58	FAIL
13	East Auburn	24.70	1.54	6.23	PASS
14	Union Hill/202	33.44	2.27	6.79	PASS
15	Sammamish	10.43	0.00	0.00	PASS
16	Duvall	8.61	0.00	0.00	PASS
17	Snoqualmie Valley	20.14	0.46	2.28	PASS
18	Tiger Mtn/Hobart	31.10	1.53	4.92	PASS
19	Black Diamond	14.04	0.00	0.00	PASS
20	Enumclaw*	45.63	0.00	0.00	PASS
21	North Bend	3.14	0.00	0.00	PASS
22	Skykomish	0	0.00	0.00	PASS
23	Snoqualmie Pass	0	0.00	0.00	PASS
24	White River	0	0.00	0.00	PASS
25	Klahanie/Eastgate	5.04	0.00	0.00	PASS

* Includes SR-169 south of the Green River Bridge; 2008 data were used because the bridge was closed for repairs and data could not be collected in 2009; SE 440th Street, an urban minor arterial from 284th Avenue SE to the Enumclaw City Limits, mileage and data were not included because the road was closed for repair during the data collection period; no 2008 data were available; also, SR-164 has been designated a Highway of Statewide Significance effective 7/26/2009, but is included in the county concurrency testing because it functions as a county arterial.

Designated Rural Towns and Rural Neighborhood Commercial Centers all pass concurrency testing.

