



# **Puget Sound Regional ITS Implementation Plan**

**Regional Traffic Operations Committee**

*Intelligent Transportation Systems (ITS)  
and Signal Operations Survey Response*

*August 7, 2008*



Puget Sound Regional Council



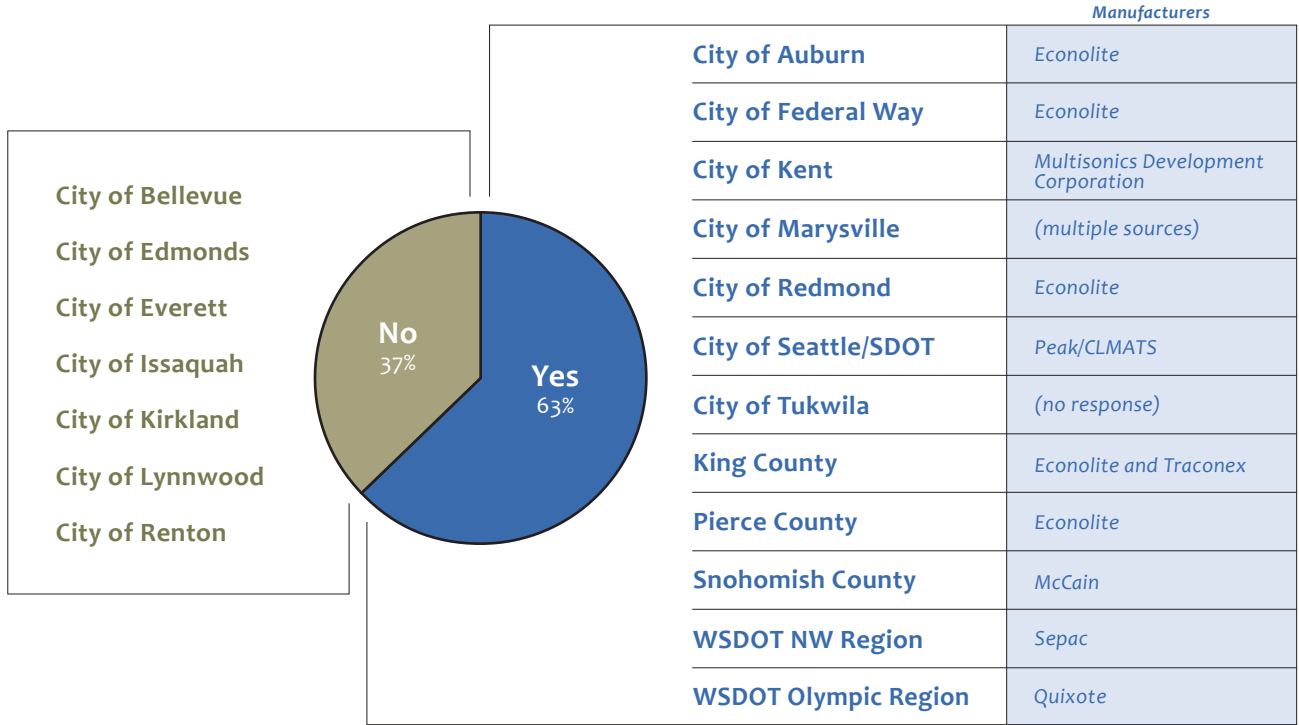
## 1. Contact Information

Jurisdiction/Agency	Name	Phone	Email
City of Auburn	Scott Nutter	253-804-5068	snutter@auburnwa.gov
City of Bellevue	Mike Whiteaker	425-452-4230	mwhiteaker@bellevuewa.gov
City of Edmonds	Bertrand Hauss	425-771-0220	hauss@ci.edmonds.wa.us
City of Everett	Dongho Chang	425 257-8871	dchang@ci.everett.wa.us
City of Federal Way	Rick Perez	253-835-2740	rick.perez@cityoffederalway.com
City of Issaquah	Fay Schafi	425-837-3422	fays@ci.issaquah.wa.us
City of Kent	Steve Mullen	253-856-5585	SMullen@ci.kent.wa.us
City of Kirkland	Iris Cabrera	425-587-3866	icabrera@ci.kirkland.wa.us
City of Lynnwood	Dick Adams	425-754-2302	dadams@ci.lynnwood.wa.us
City of Marysville	John Tatum	360-363 8287	jtatum@ci.marysville.wa.us
City of Redmond	Paul Cho	425-556-2751	pcho@redmond.gov
City of Redmond	Bruce Newman	425-556-2856	BRNewman@Redmond.gov
City of Renton	Chris M. Barnes, Sr.	425-430-7220	cbarnes@ci.renton.wa.us
City of Seattle/SDOT	Adiam Emery	20684-5121	adiam.emery@seattle.gov
King County	Aileen McManus	206-263-6135	aileen.mcmanus@kingcounty.gov
Pierce County	Marlene Ford	253-798-7010	mford@pierce.wa.us
Snohomish County	Jim Bloodgood	425-388-6419	jim.bloodgood@snoco.org
WSDOT NW Region	Kevin Mizuta	206-440-4460	mizutak@wsdot.wa.gov
WSDOT Olympic Region	Jim Johnstone	(360) 357-2707	johnsja@wsdot.wa.gov

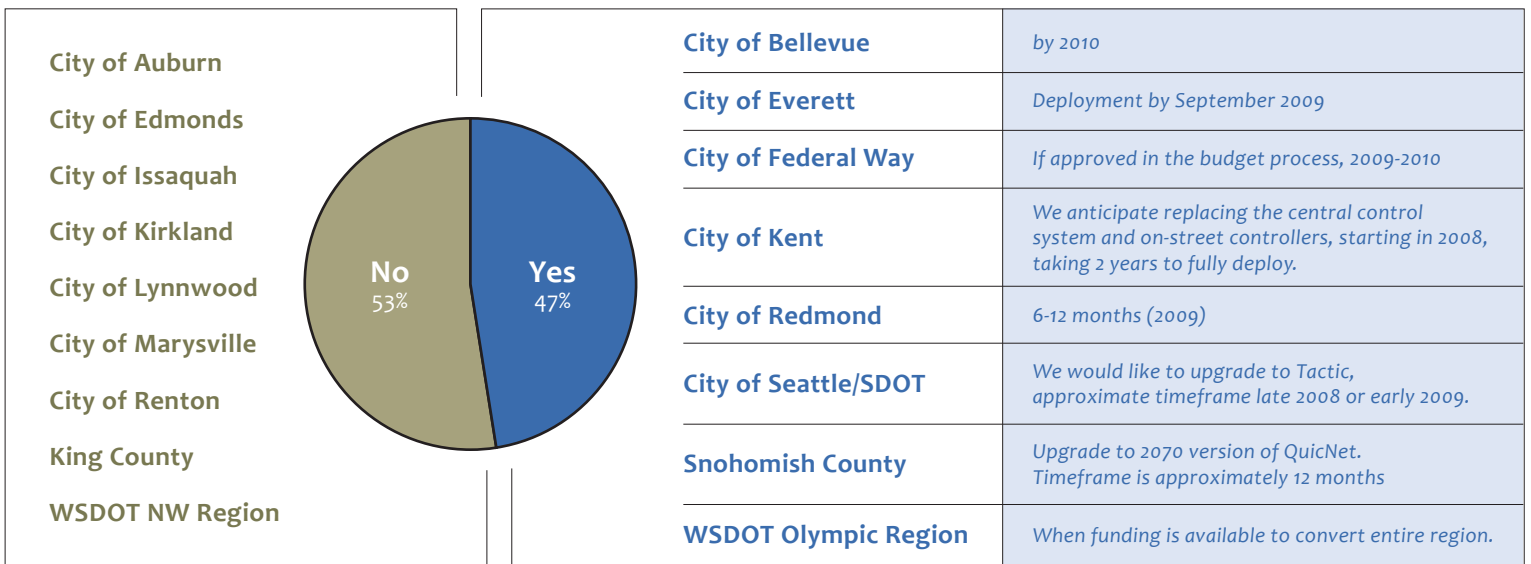
## 2. Information about traffic signal system - and - 3. central traffic control system

Jurisdiction/Agency	Traffic Signal System			Central Traffic Control System		
	# Signals Owned	# and maintain Signals Operated	# Signals Maintained	Supplier	System Name	Version
City of Auburn	80	81	81	Econolite	ICONS	3.11.2.4
City of Bellevue	156	182	182	Computran / Siemens	MTCS / i2TMS	MTCS-PC / 3.9.6.46
City of Edmonds	21	17	21	-	-	-
City of Everett	170	163	163	Quixote	Multisonics VMS-330	-
City of Federal Way	75	78	75	Econolite	Aries	3.11
City of Issaquah	42	42	42	Siemens	ACTRA	3.3.3
City of Kent	103	107	103	Quixote	VMS	ITMS
City of Kirkland	42	42	42	-	-	-
City of Lynnwood	57	65	57	Naztec	ATMS.now	-
City of Marysville	26	28	26	Bltrans	Quicnet	4
City of Redmond	90	90	90	Econolite	Aries	3.10
City of Renton	118	109	118	Siemens - EAGLE	ACTRA	2002
City of Tukwila	52	52	52	Siemens	ACTRA	-
City of Seattle/SDOT	1005	1010	1005	Siemens	ACTRA	3.2
King County	135	190	355	Siemens / Econolite	ACTRA / ICONS	3.3.0 / 3.11.2.4
Pierce County	92	92	173	-	-	-
Snohomish County	72	121	121	McCain	QuicNet/4	2.14.0
WSDOT NW Region	467	482	482	Siemens	i2TMS	3.9.6.14
WSDOT Olympic Region	301	270	270	Quixote	Traconex TMP 390	J8

4. Do you have signals on a master/slave system? and 5. what are the manufacturers?

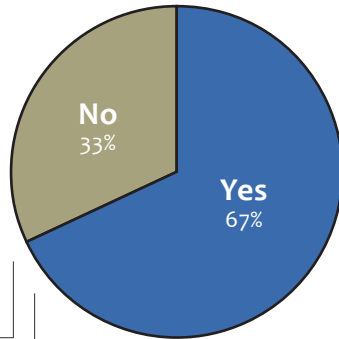


6. Is your agency planning to purchase or replace central system software? (incl. timeframe/comments)



## 7. Is your agency planning to purchase or replace your traffic signal controllers? (with what?)

City of Auburn  
 City of Issaquah  
 City of Marysville  
 City of Renton  
 City of Seattle/SDOT  
 King County



City of Bellevue	Currently purchasing Econolite ASC/3, but system replacement may open to others.
City of Edmonds	(no comments)
City of Everett	Selection has not been made.
City of Federal Way	Replacing ASC/2's with ASC/3's if needed to add Flashing Yellow Arrow or as needed
City of Kent	We have not selected a controller yet, but are considering Econolite, Siemens, and Naztec controllers.
City of Kirkland	Econolite/Icons, 2-3 years
City of Lynnwood	There is an annexation project which will bring another 24 signals into the city and they will be upgraded to the cities standard of 2070 controllers with the Naztec Apogee software
City of Redmond	Econolite ASC2 Currently 40 deployed. Will be 100% by fall 2008
Pierce County	We are in the process of replacing all of our controllers to Econolite ASC/3-2100
Snohomish County	We are deciding on 2070 lite or 170 Coldfire. Replacement will be gradual.
WSDOT NW Region	Ongoing effort to upgrade old controllers to 2070 with Nextphase
WSDOT Olympic Region	When funding is available to convert entire region.

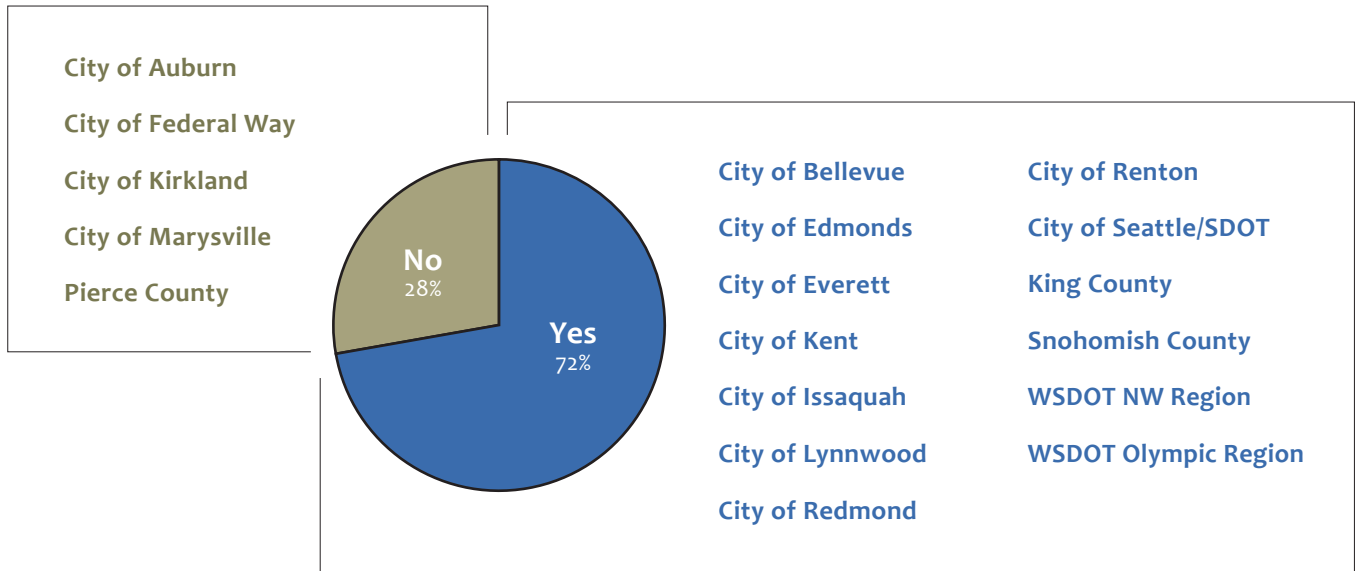
## 8. Does your agency currently operate a Traffic Management Center?

No Existing TMC		Existing Traffic Management Center							
Planned	Not Planned	Jurisdiction/Agency	Hours of Coverage			# of Stations	Square Footage		
			Peak	Business	24/7		< 500 sq ft	500-1000 sq ft	> 500 sq ft
		City of Auburn		✓		2	✓		
		City of Bellevue		✓		2		✓	
✓ 2010		City of Edmonds							
✓ 2010		City of Everett							
✓ 2009/10*		City of Federal Way							
		City of Issaquah		✓		2	✓		
		City of Kent		✓		1	✓		
		City of Kirkland (no response)							
✓ 2010**		City of Lynnwood		✓		3	✓		
✓ 2009/10		City of Marysville							
		City of Redmond	✓			1	✓		
		City of Renton		✓		3		✓	
		City of Tukwila (no response)							
		City of Seattle/SDOT	✓			2		✓	
		King County	✓			3		✓	
	✗	Pierce County							
		Snohomish County	✓			2	✓		
		WSDOT NW Region			✓	7		✓	
		WSDOT Olympic Region			✓	3			✓

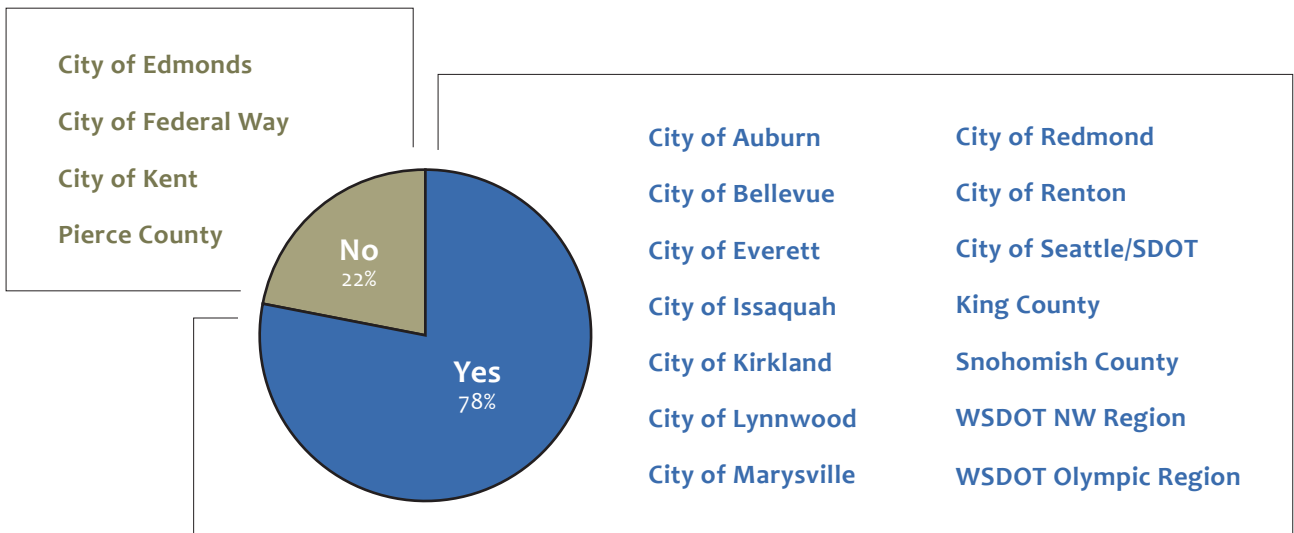
\* if approved

\*\* Larger facility in 2009

9. Does your system include vehicle detectors that send real-time traffic data (i.e. volume, occupancy/density, queues) to a central system and/or master controller?



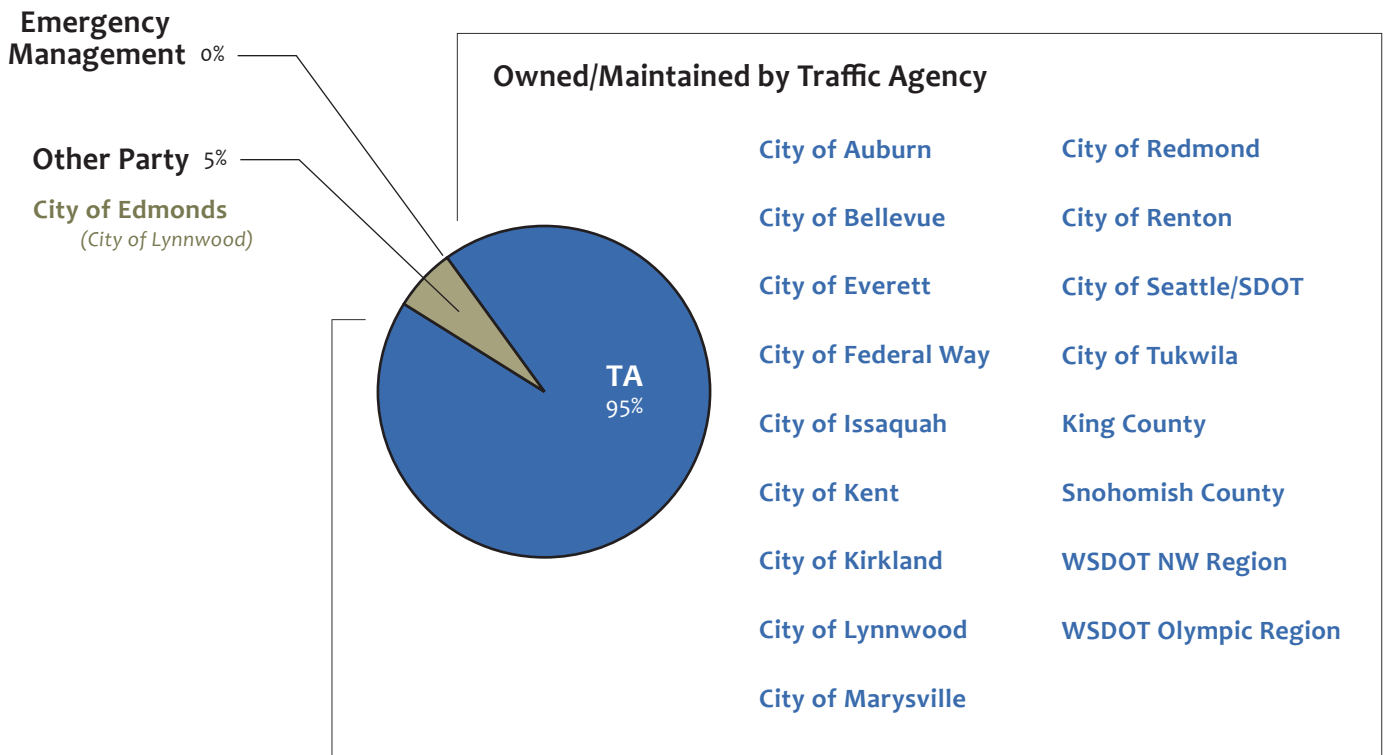
10. Does your agency use CCTV cameras to monitor traffic conditions on arterials?



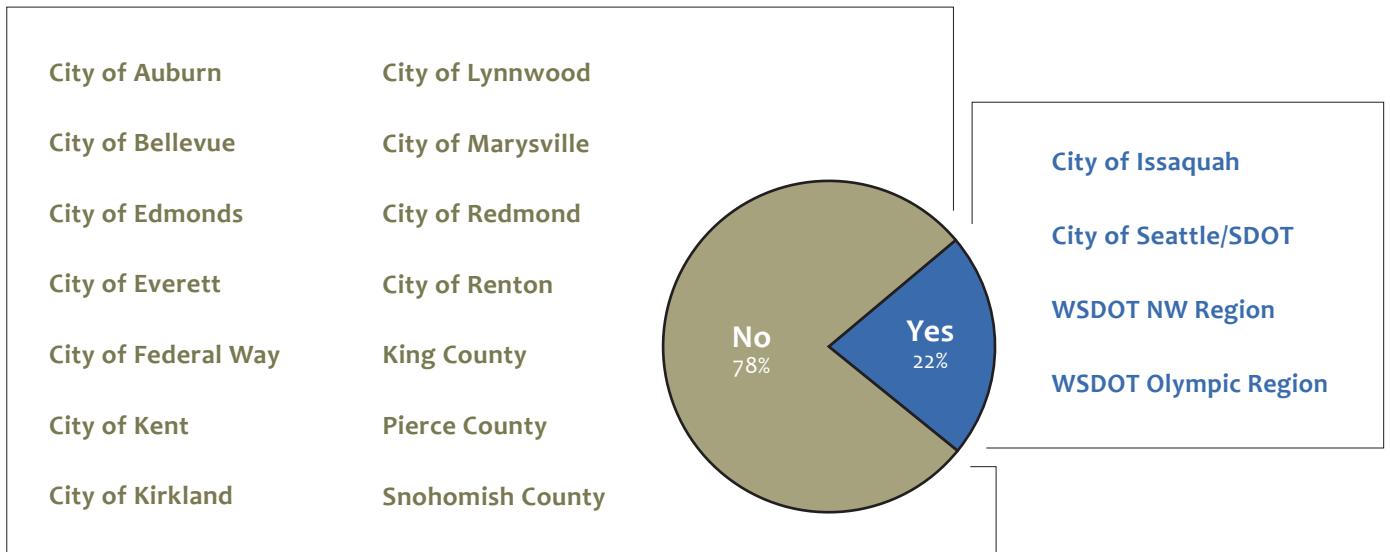
11. Are your cameras for traffic monitoring only, or are they used for other purposes such as emergency management? Please check all that apply.

Jurisdiction/Agency	Traffic Monitoring	Emergency Management	Other Uses
City of Auburn	✓	✓	
City of Bellevue	✓	✓	Police investigations
City of Edmonds	✓		
City of Everett	✓	✓	Transit operations
City of Federal Way			Police surveillance
City of Issaquah	✓	✓	May be used by the Police Department in the future.
City of Kent	(✓)	(✓)	Not currently using cameras, but anticipate VERY SOON to bring 2 cameras on line. Anticipate multiple uses.
City of Kirkland	✓		
City of Lynnwood	✓	✓	
City of Marysville			For lack of communications, current ptz are operated locally to capture railroad crossing violation
City of Redmond	✓	✓	Soon to have feed to 911 center
City of Renton	✓		
City of Tukwila (no response)			
City of Seattle/SDOT	✓	✓	
King County	✓		Public traveler information via MyCommute website
Pierce County (no response)			
Snohomish County	✓		
WSDOT NW Region	✓	✓	
WSDOT Olympic Region	✓	✓	

12. Are the cameras primarily owned and maintained by the traffic department, or someone else?

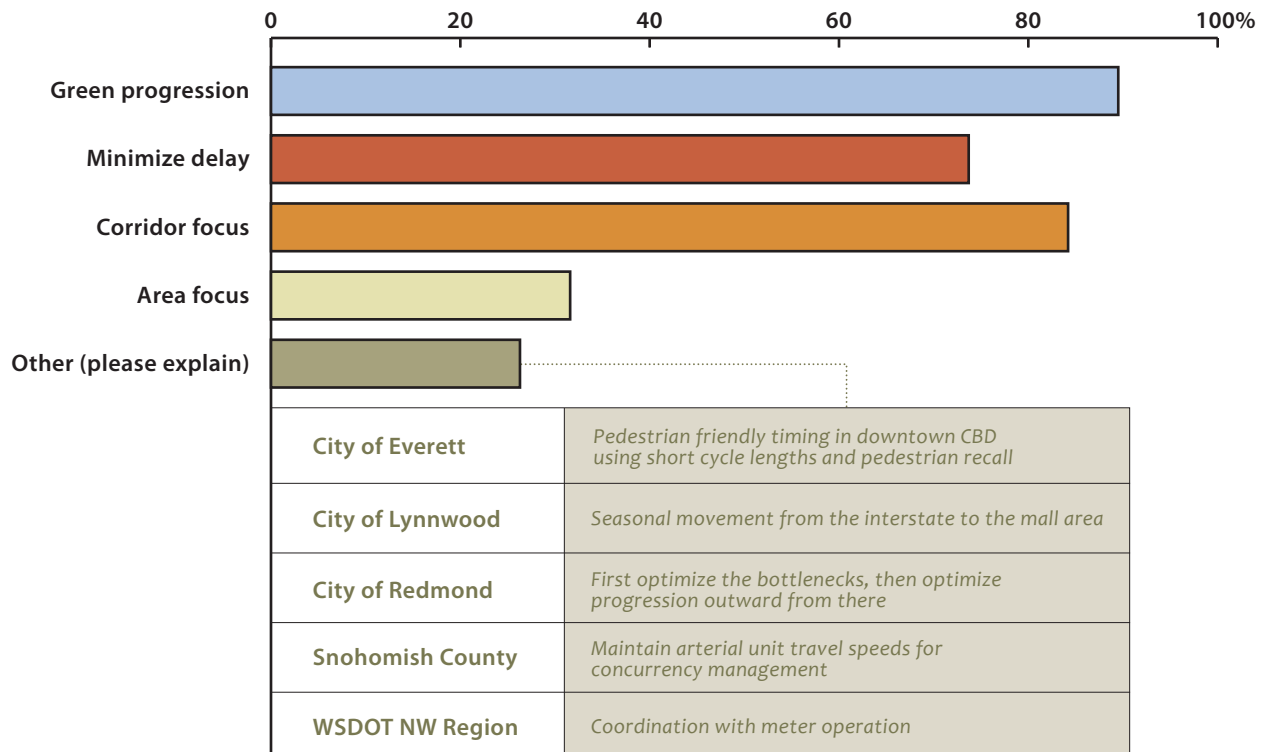


13. Does your agency use fixed Dynamic Message Signs to communicate conditions to drivers?

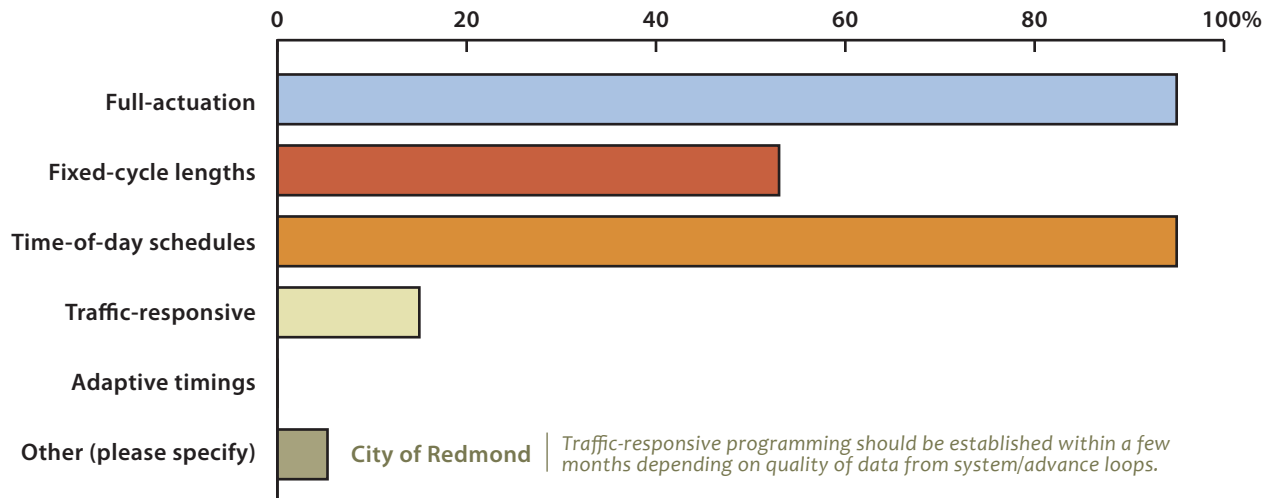


Page: Signal Timing Approaches and Practices

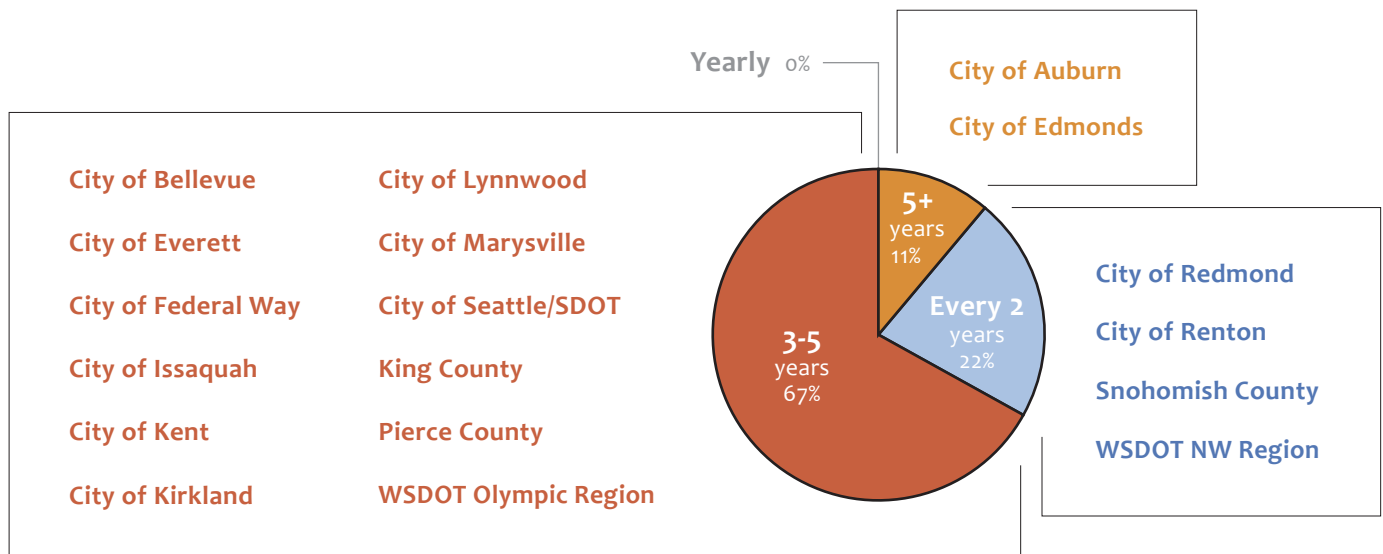
14. What approaches and strategies are used by your agency when deciding how to set signal timing?



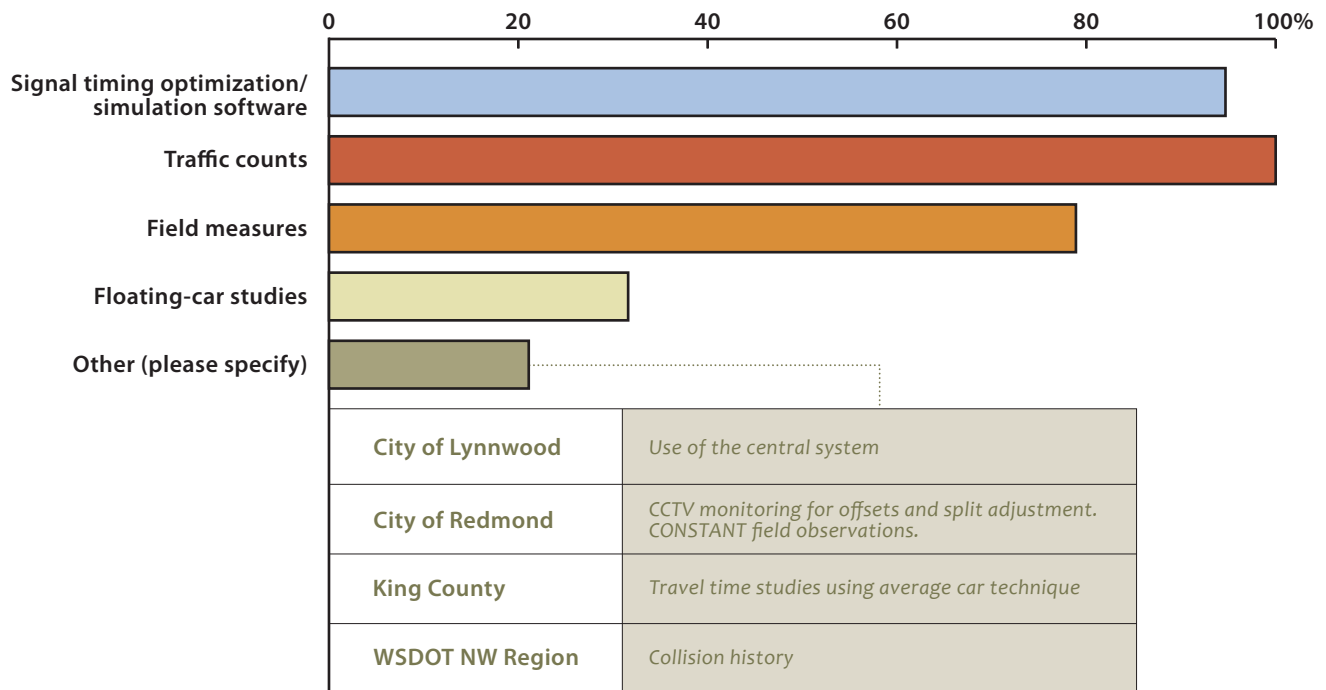
15. What signal timing operational approaches are followed by your agency? (Please check all that apply)



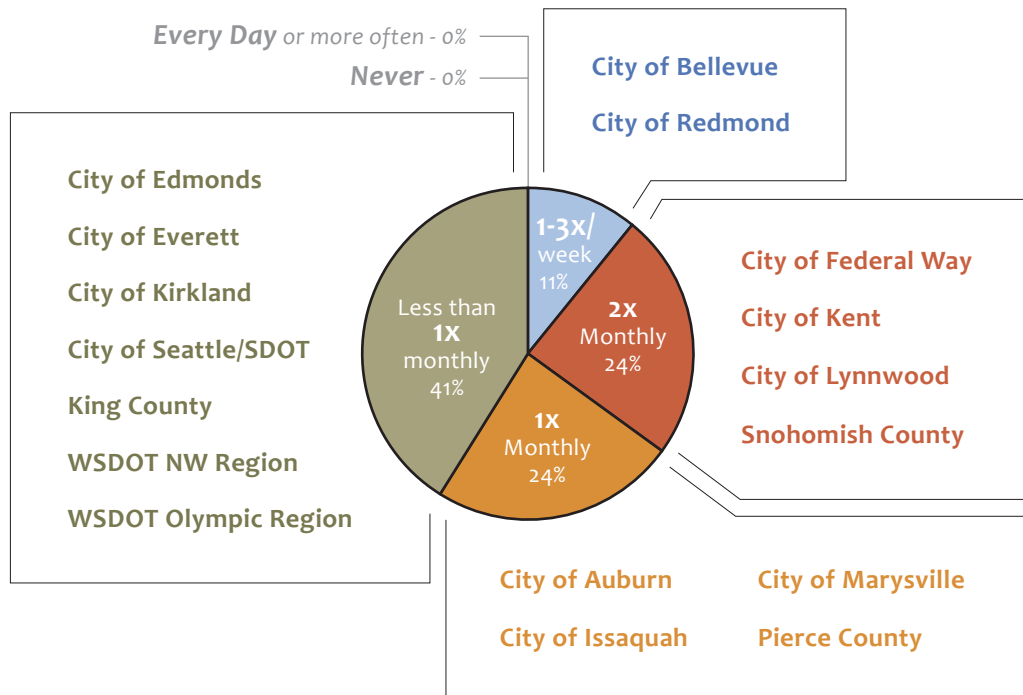
16. How frequently does your agency update its signal timing plans?



17. What procedures are used? Please check all that apply.



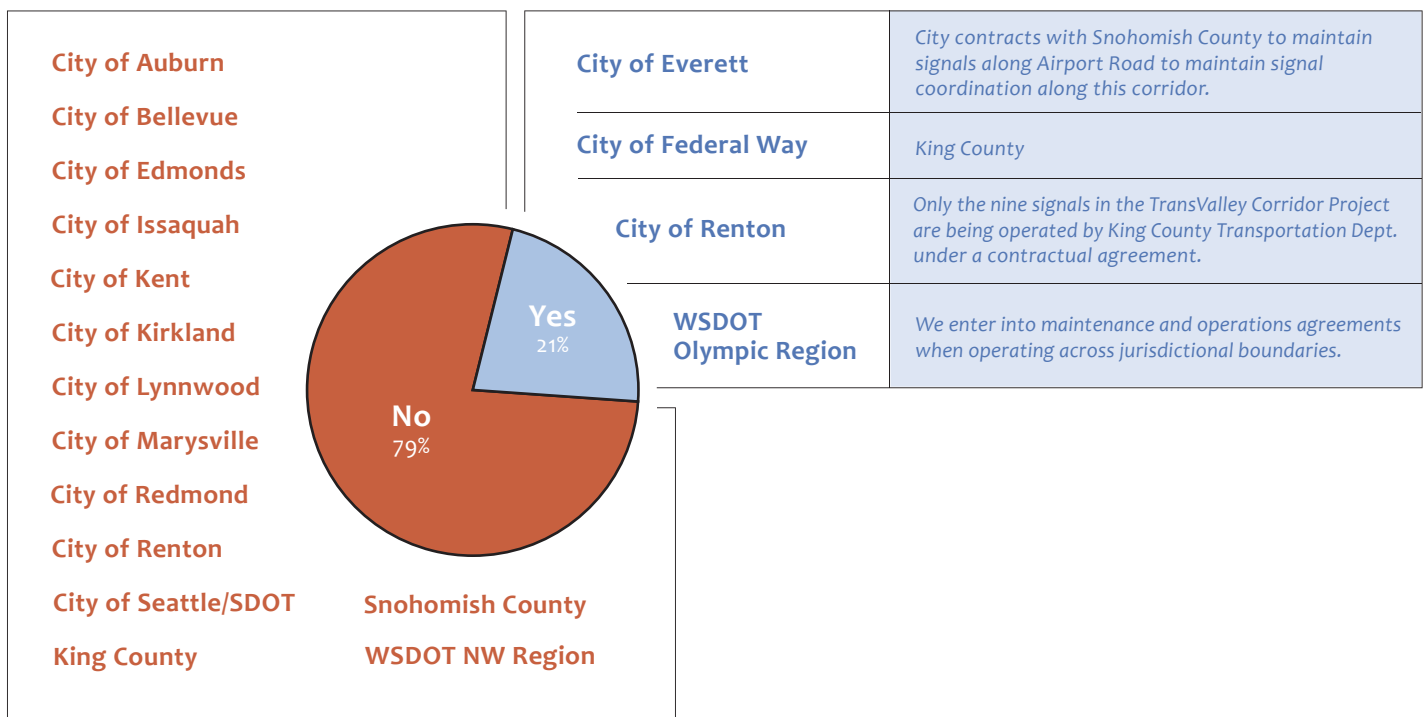
18. How many times per month do you adjust your signal timing in response to a planned or unplanned incident?



- 19. How many traffic signal operations engineers are designated by your agency?
- 20. What percentage of their time would you estimate is spent on operations?
- 21. How many signal maintenance technicians are employed by your agency?
- 22. Does your agency have operations and/or maintenance staff on-call to respond to system malfunctions outside of business hours?
- 23. Does your agency have adequate operations and maintenance staff available given the size of your signal system?

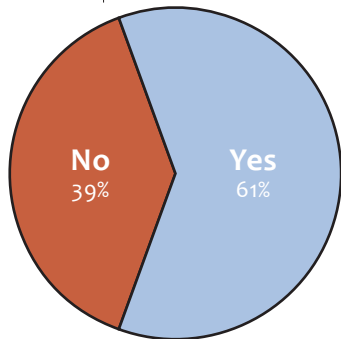
Jurisdiction/Agency	Designated Engineers	% of their time for Operations	Maintenance Techs on Staff	On-call After Hours	Adequate Staffing? (comments)
City of Auburn	1	0-19%	3	O & M	Less than desired
City of Bellevue	3	60-89%	2 techs / 4 elect.	O & M	Less than desired
City of Edmonds	1	0-19%	2	Maintenance	Less than desired
City of Everett	2	0-19%	3	O & M	Less than desired - Finding qualified/knowledgeable staff has been a challenge.
City of Federal Way	0 (contracted)	0-19%	0 (contracted)	N/A	Yes, adequate
City of Issaquah	1	20-39%	2	N/A	Yes, adequate
City of Kent	1	0-19%	3	O & M	Less than desired - Significantly less staff than would be required to meet recommendations for preventive maintenance, let alone upgrades, operations, etc.
City of Kirkland	1	20-39%	2	Maintenance	Yes, adequate
City of Lynnwood	1	20-39%	3	Maintenance	Less than desired
City of Marysville	1	0-19%	1.5	O & M	Less than desired - Possible addition of an O&M staff person mid year
City of Redmond	2	60-89%	4	O & M	Less than desired - Staff currently constrained, but due largely to current ITS projects underway. Planning to add one technician.
City of Renton	2	80-100%	7	Maintenance	Yes, adequate
City of Tukwila (no response)	--	--	--	--	--
City of Seattle/SDOT	6	80-100%	30	O & M	Less than desired
King County	3	20-39%	15	Maintenance	Less than desired - ITS technicians and operations engineers are short supply
Pierce County	1	60-89%	6	O & M	Less than desired - We will be hiring one more signal technician and are looking to hire one more operation engineer that will be fully dedicated to signals and operations.
Snohomish County	3	20-39%	4	O & M	Yes, adequate
WSDOT NW Region	9	60-89%	--	O & M	Less than desired
WSDOT Olympic Region	3	80-100%	20	Maintenance	Less than desired

24. Do you currently contract out any of your signal system operations or maintenance? If yes, please describe:



25. Are there any special skills or training that your staff has, that you might be willing to share with other agencies through a regional “knowledge pool”? If yes, please describe:

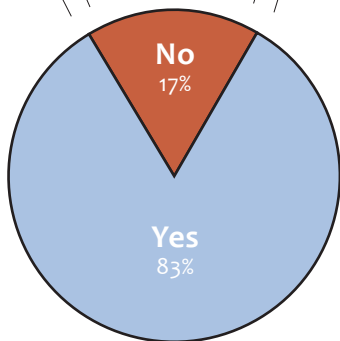
- City of Federal Way
- City of Issaquah
- City of Kirkland
- City of Marysville
- City of Renton
- City of Seattle/SDOT
- Pierce County



City of Auburn	Fiber networking of signals, communication, use of encoders and cameras.
City of Bellevue	Traffic responsive setup issues, communication systems, controller expertise, TMC operations, etc
City of Edmonds	Coordination
City of Everett	City has an experienced signal designer
City of Kent	Signal timing/coordination plan development, system integration, special applications for video surveillance, communications network
City of Lynnwood	Installation of over 450 video detection cameras, customized pinouts for the signal cabinets, UPS installations, 3M opticom coding and lockouts, temperature probes, creating links from planning to analysis to operations using software, fiber design and splicing, modem configuration and data transmission
City of Redmond	Knowledge in IT (Systems administration), fiber cable maintenance, video detection setup, loop detector placement, isolated signal timings.
King County	Signal operations, ITS Expertise, ITS Project Management and Design, synchro expertise, econolite/eagle/TS2 expertise, video compression techniques, video transmission over various communications media.
Snohomish County	Anything we can
WSDOT NW Region	We would be willing to share any knowledge that would assist in regional signal operations
WSDOT Olympic Region	TRACONEX TMP 390 operations

26. Are there any skills development or training opportunities that would be particularly valuable to your agency that you would like to have provided by a regional knowledge pool or other experts?

- City of Edmonds
- City of Marysville
- Pierce County



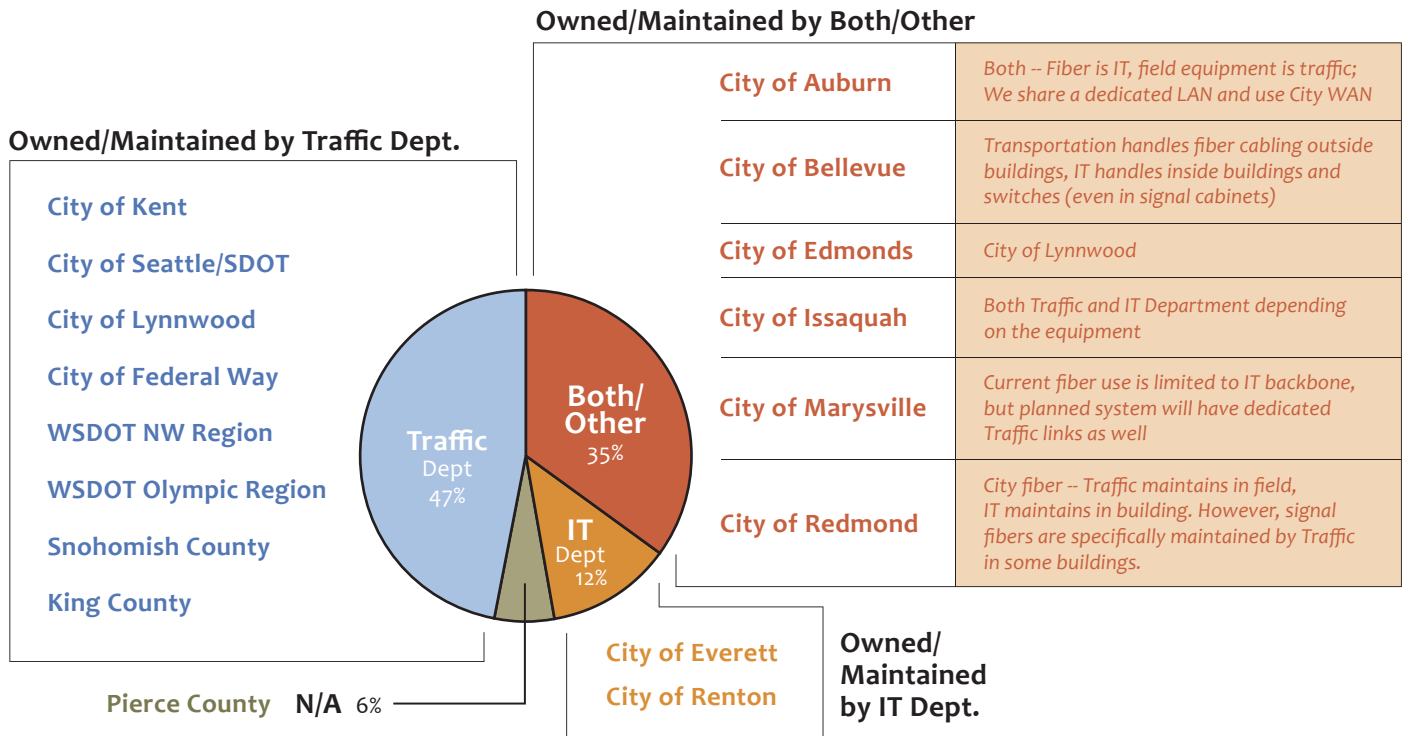
City of Auburn	Traffic data collection, volume and flow maps, VMS experience, equipment specifications
City of Bellevue	TSP operational strategies, LRT operational strategies, adaptive strategies
City of Everett	Fiber optic communication, CCTV, and advanced signal controller operation and maintenance
City of Federal Way	Convincing Council to adequately fund operations
City of Issaquah	ACTRA Training
City of Kent	Regional signal system coordination, network access security protocols, data acquisition & management system, information dispersion (via internet) such as flow maps/real-time traffic conditions, regional emergency management planning
City of Kirkland	ITS equipment maintenance
City of Lynnwood	DMS signs with graphical display
City of Redmond	battery backup operations and maintenance, fiber optic cable documentation, communications design and troubleshooting, data management, inventory
City of Renton	Fiber optic cable installation and maintenance
City of Seattle/SDOT	Network Arch., traffic responsive, license plate reader (travel time), DMS
King County	Center to center, NTCIP, VMS, networking, router programming
Snohomish County	Fiber optics information
WSDOT NW Region	Any knowledge that would help with future signal operations, maintenance, and policy
WSDOT Olympic Region	Any training that is available relating to traffic signal or ITS maintenance and operations

27. What types of communications infrastructure are used for your signal system? Please check all that apply.  
 28. What type of network is your system on?

Communications Infrastructure in Signal System

Jurisdiction/Agency	Fiber Optics	Copper Twisted Pair	Wireless	Network Type
City of Auburn	✓	✓		Agency WAN, shared Dedicated LAN
City of Bellevue	✓	✓		Agency WAN
City of Edmonds	✓			Lynnwood Mainframe
City of Everett		✓		Twisted pair serial communication -- Ethernet over copper and fiber are planned on dedicated LAN
City of Federal Way	✓	✓		Dedicated LAN
City of Issaquah	✓		✓	Agency WAN
City of Kent	✓	✓		Dedicated LAN
City of Kirkland (no response)	--	--	--	--
City of Lynnwood	✓		✓	Dedicated LAN
City of Marysville	✓	✓	✓	System is currently a mix of dedicated and public communications modes
City of Redmond	✓	✓	✓	Dedicated LAN
City of Renton	✓	✓	✓	Dedicated LAN
City of Tukwila (no response)	--	--	--	--
City of Seattle/SDOT	✓	✓	✓	Dedicated LAN
King County	✓	✓	✓	Dedicated LAN
Pierce County		✓		--
Snohomish County	✓	✓	✓	Dedicated LAN
WSDOT NW Region	✓	✓		Dedicated LAN
WSDOT Olympic Region	✓	✓	✓	Dedicated LAN

29. If using fiber optic and Ethernet to communicate with controllers and other ITS devices, who owns and maintains the fiber and related equipment?



30. What is your approximate annual budget for traffic operations and maintenance?

31. Does your jurisdiction restrict the use of local funds for projects that are regional or multijurisdictional and not entirely within the boundaries of your jurisdiction?

Jurisdiction/Agency	Approx. Budget for Traffic O&M	Known Restrictions on Use of Local Funds for Regional/Multi-Jurisdictional Projects
City of Auburn	\$130,000; plus employee sal.	None
City of Bellevue	\$3.5 million	None
City of Edmonds	\$15,000	Yes
City of Everett	\$1.3 million	None
City of Federal Way	\$300,000	Participation in regional projects would require City Council approval and is in no way assured.
City of Issaquah	\$300,000	None
City of Kent	\$560,000	None
City of Kirkland	\$300,000	Yes
City of Lynnwood	\$750,000	None
City of Marysville	\$500,000	The city does not have sufficient funding for projects generally. The one exception will be a dedicated backhaul for direct connection to the county communications network for increased TMC interoperability.
City of Redmond	\$1.8 million	Project/Program dependant
City of Renton	\$3.14 million	None
City of Tukwila (no response)	--	--
City of Seattle/SDOT	--	--
King County	\$480,000: \$75,000 operations, \$3000/intersection maint.	Yes - King County restricts funds, but have several multijurisdictional projects. These projects now require each jurisdiction to provide match funding for the work done in that jurisdiction.
Pierce County	\$1.0 million (County funds)	Yes
Snohomish County	\$1.2 million	Yes - we will sometimes use local funds on shared locations that are not owned or operated by the county but typically, funds are restricted.
WSDOT NW Region	--	None
WSDOT Olympic Region	\$6.0 million	Yes

32. In addition to the beginnings of shared signal control, many jurisdictions already share planning models, traffic counts, 911 dispatch, building permits (i.e. eCity.gov services), etc., to share in the costs and provide backup services. Is your jurisdiction open to discussing shared operations of key corridors?

33. Would your agency consider handing over operations including the selection of timing plans to another agency (adjacent, County, WSDOT) for after hours response, under the conditions described above?

34. Would your agency consider allowing another agency (adjacent, County, WSDOT) to select timing plans affecting signals in your jurisdiction during day-to-day operations, under the conditions described above?

## Coordinated Operation Scenarios for a Multi-jurisdictional Corridor Connection Via Center-to-Center (C2C) Communications Using a Centralized Signal System.

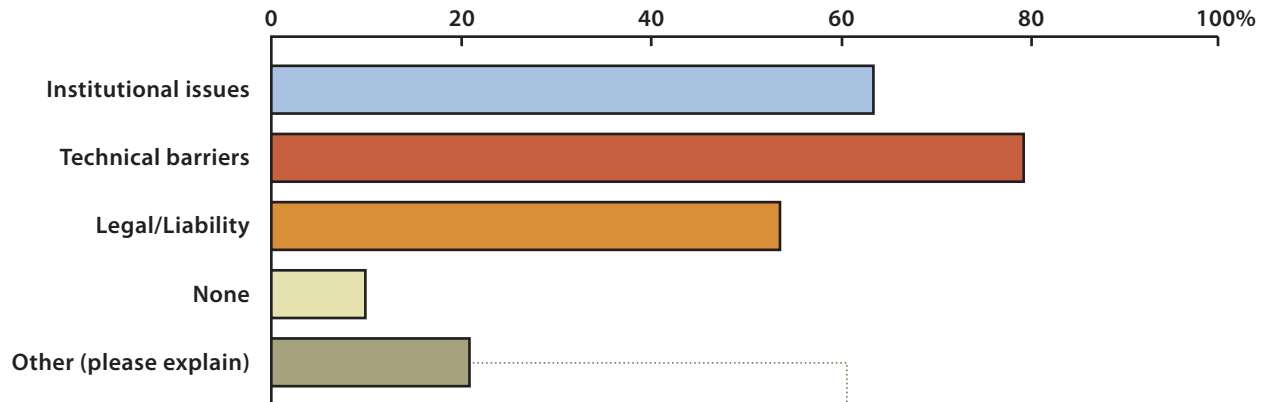
**Scenario #1:** A single partner agency performs day-to-day signal timing adjustments and operation of the corridor, such as with the Trans-Valley corridor project successfully implemented by King County, WSDOT, Tukwila and Renton. Day-to-day operations are performed by King County, but the other agencies still have control of their signals.

**Scenario #2:** All agencies to continue to operate their signals during business hours, but turn control over to another agency with 24-hour operations at other times.

Jurisdiction/ Agency	Is your jurisdiction open to discussing other shared operations of key corridors?	Allow another agency to handle operations, including timing plans, after hours?	Allow another agency to select timing plans during day-to-day operations?
City of Auburn	Yes	Yes	No
City of Bellevue	Yes	Yes	Yes
City of Edmonds	Yes	No	Yes
City of Everett	Yes	Yes	Yes
City of Federal Way	Yes	Yes	No
City of Issaquah	Yes	Yes	Yes
City of Kent	Yes	Yes	Yes
City of Kirkland	Yes	No	No
City of Lynnwood	Yes	Yes	Yes
City of Marysville	Yes	Yes	--
City of Redmond	Yes	Yes	Yes
City of Renton	Yes	Yes	Yes
City of Tukwila (no response)	--	--	--
City of Seattle/SDOT	Yes	No	Yes
King County	Yes	Yes	Yes
Pierce County	Yes	No	Yes
Snohomish County	Yes	No	No
WSDOT NW Region	Yes	Yes	Yes
WSDOT Olympic Region	Yes	Yes	Yes

*In any scenario where signal control sharing is under consideration, signal timing plans and coordination pattern changes would be pre-approved by each agency and a communications chain (voice, e-mail, page, etc.) would be established for contacting each agency during an event that would trigger a change from normal operations.*

35. In your experience, what have been the barriers to signal control sharing? Please check all that apply:

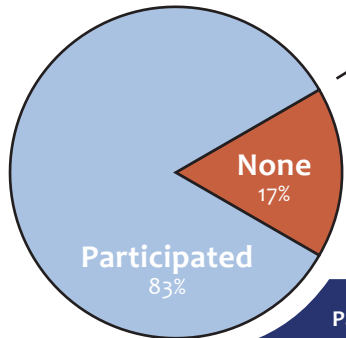


<b>City of Auburn</b>	<i>Personal, we're completely capable</i>
<b>City of Bellevue</b>	<i>Internal: We're understaffed, so extra work needed for interjurisdictional is low priority.</i>
<b>City of Marysville</b>	<i>Financial</i>
<b>City of Redmond</b>	<ul style="list-style-type: none"> <li>- If we can get communications that will allow another agency to implement certain functions, and we can maintain our own communications abilities, this is a no-brainer.</li> <li>- Trust that outside agency could do a better job of operating the signal.</li> <li>- Legal/liability: Sure, we need assurance that the other agency will secure the system and not do certain things, but that should be straightforward.</li> </ul>
<b>King County</b>	<i>The technical barriers include non-compatible controllers and central system issues. Each agency must have a work station to view and operate their signals that are connected into another jurisdiction's central system. There is a lack of true center-to-center capabilities.</i>
<b>Pierce County</b>	<i>We currently share signal timing at one interchange with WSDOT. In the past, this sharing of time of day plans has always worked well for both parties. Since the corridor affected is interconnected and operated by the County, the County informs WSDOT of the timing to be used at their interchange signals to promote progression on the corridor while minimizing queues on the ramp.</i>

36. Has your jurisdiction successfully participated in the implementation of highway or signal improvements along any key cross-jurisdictional corridors?

37. Do you have any Memorandums of Understanding (MOU) or similar agreements with other agencies for signal timing coordination or joint signal control?

38. Is there any language that would be required by your agency for such an agreement?



City of Everett ..... No ..... Yes

City of Federal Way ..... No ..... Yes

City of Seattle/SDOT ..... No ..... No

#### Participation in Cross-Jurisdictional Hwy/Signal Improvements

MOU/  
Other  
Agreements

Required  
Language

		MOU/ Other Agreements	Required Language
<b>City of Auburn</b>	Define Successful, ITS project and coordination on SR164 WSDOT ramps and Auburn signals, under SR18	Yes	Yes
<b>City of Bellevue</b>	We operate almost all WSDOT signal in Bellevue for this very reason.	Yes	Yes
<b>City of Edmonds</b>	(no comment)	No	No
<b>City of Issaquah</b>	SE 56th/NW Sammamish Rd/SR 900 and ELSP/Front Street Corridors	Yes	Yes
<b>City of Kent</b>	Pacific Highway South, S. 212th St/S. 208th St Corridor, Trans-Valley corridor( S. 180th St), S. 277th Street corridor, West Valley Highway, Green River Valley Signal Coordinating Committee	Yes	Yes
<b>City of Kirkland</b>	NE 85th Street: coordinated with Redmond; NE 124th Street: joint operation with King County and WSDOT	Yes	Yes
<b>City of Lynnwood</b>	SR 99 through Edmonds and MLT	No	Yes
<b>City of Marysville</b>	Successfully worked with WSDOT to modify phasing at their key intersection on the corridor to develop a common usable cycle length for coordination.	--	--
<b>City of Redmond</b>	West Lake Sammamish Parkway near SR 520. Union Hill Road near SR 520. 148th Ave NE along Redmond-Bellevue border Redmond Way (SR908) near 132nd Ave NE SR 202 within City of Redmond	No	Yes
<b>City of Renton</b>	TransValley Corridor Project with King County, Tukwila and WSDOT along SW 43rd St.	Yes	No
<b>King County</b>	Trans-Valley ITS corridor: S. 180th/S. 43rd/Carr Road/Petrovitsky between Southcenter and 151st Ave SE, fiber interconnect, CCTV and remote monitoring and operating from KC TCC on the KCs ACTRA central system. Tukwila, Renton and WSDOT have work stations off KCs system. KC operates the corridor, WSDOT maintains operation of their signals, but KC has implemented the coordinated timing plans throughout the corridor. NE 124th St between 100th Ave NE and SR 202, Fiber interconnect, CCTV, remote operation of signals. Signals on KCs icons central system and operated by KC. Kirkland and WSDOT have workstations off KC system. Soon Avondale Road/Novelty Hill Road ITS. Joint project with Redmond. Redmond and KC will maintain operation of own signals but will have the ability to monitor each others.	Yes	Yes
<b>Pierce County</b>	Canyon Road and SR 512 interchange	No	No
<b>Snohomish County</b>	164th Street SE/SW involves County/WSDOT/Mill Creek. We are interconnected to the signal in Mill Creek and use a PTZ camera to establish offsets for WSDOT signals. 128th Street/Airport Road involves County/Everett/WSDOT. We are interconnected with the Everett signals and we use a PTZ camera to establish offsets with WSDOT signals. SR 527 in Bothell involves the city of Bothell and WSDOT. Thew city signals are interconnect and we use a PTZ camera to establish offsets to WSDOT signals.	Yes	Yes
<b>WSDOT NW Region</b>	SR525, SR99, SR527, SR104, SR900	Yes	Yes
<b>WSDOT Olympic Region</b>	When mutually beneficial to both parties we will enter into a maintenance and operations agreement. Numerous locations.	Yes	Yes

39. WSDOT is currently looking at updating and expanding its traveler information web site to include local and multi-modal information. Would your agency be willing to share traffic and/or video information to be posted on such a site?

40. What types of information might you be willing to share? Please check all that apply.

41. Do you know of any concerns (liability, privacy, etc.) that might prevent your agency from participating in such a regional travel information effort?

Jurisdiction/Agency	Willing to Share Traffic Data for WSDOT online?	What Types of Information Would Your Agency be Willing to Share?					Any Concerns That May Prevent Your Agency's Participation?
		Congestion	Signal	Constr./Maint. Closures	Incidents	Video	
City of Auburn	Yes	✓	✓	✓	✓	✓	No
City of Bellevue	Yes	✓	✓	✓	✓	✓	No
City of Edmonds	Yes		✓		✓		No
City of Everett	Yes	✓	✓	✓	✓	✓	No
City of Federal Way	Yes	✓		✓	✓	✓	Yes - Irrational Paranoia
City of Issaquah	Yes	✓	✓	✓	✓	✓	No
City of Kent	Yes	✓	✓	✓	✓	✓	No
City of Kirkland	Yes	✓	✓	✓	✓	✓	Yes
City of Lynnwood	Yes	✓	✓	✓	✓	✓	No
City of Marysville (N/A)	--						--
City of Redmond	Yes	✓	✓	✓	✓	✓	Yes - Video Camera, only appropriate views
Comment: We would also share detector data.							
City of Renton	Yes	✓	✓	✓	✓	✓	No
City of Tukwila (no response)	--						--
City of Seattle/SDOT	Yes	✓	✓	✓		✓	No
King County	Yes	✓	✓	✓	✓	✓	No
Comment: Road weather and flood closure information, when available							
Pierce County	Yes			✓		✓	Yes - Timely updates (Accurate information)
Snohomish County	Yes	✓	✓	✓	✓	✓	No - (Privacy is an issue that needs investigation)
WSDOT NW Region	Yes	✓	✓	✓	✓	✓	No
WSDOT Olympic Region	Yes	✓	✓	✓	✓	✓	No

42. In 2005, PSRC conducted a survey of agencies' ITS inventory as part of updating the Regional ITS Architecture. In order for us to have current information for 2008, please indicate any new ITS deployments your agency has implemented since 2005 that were not otherwise covered by this survey:

43. Please provide any additional comments you may still have.

Jurisdiction/Agency	New ITS Deployments Implemented Since 2005	Any Other Comments About the Survey?
<b>City of Auburn</b> Scott Nutter	The AWS, SR164 ITS project cameras and central system was built in 2005 and phase B will be built late this year	Coordination and participation from WSDOT is the only way multi-jurisdiction projects can succeed and there needs to be a major effort put forth for changes to occur.
<b>City of Bellevue</b> Mike Whiteaker	We've added numerous signals, CCTV locations and added miles of comm lines.	(no comment)
<b>City of Federal Way</b> Rick Perez	None	SR 161 would be another corridor to mention.
<b>City of Issaquah</b> Fay Schafi	Completed construction of the City's ITS project. ITS project scope of work included the installation of ITS equipment (fiber optic cables, traffic signal communication equipment, upgraded traffic signal controllers, central traffic signal control system, traffic cameras, variable message signs and associated equipment) and supporting infrastructure (conduits, fiber vaults, detector loops, etc.), construction of a Traffic Management Center (TMC), and re-timing of traffic signals. What is unusual about this project is that it was originally funded by a citizen approved bond measure in the amount of \$3.63 million that was passed in 2004. The City was successful in receiving ITS grant funds in 2006 which reduced the bond cost. The City's ITS system is fully operational and staff are currently using the system to monitor and manage traffic more quickly and efficiently.	(no comment)
<b>City of Lynnwood</b> Dick Adams	Added more fiber and a couple more signals. Should meet to give a more detailed list of issues and inventories.	We are ready and have planned to help other agencies around us not needing to duplicate the same thing. Our central system could connect to Edmonds, Mountlake Terrace, WSDOT, Sno County with ease. Most are on our fiber trunkline. We have equipment ready to go and connection to the internet.
<b>City of Marysville</b> John Tatum	I doubt you got a response from this agency in 2005, so elements (I know about since my addition to staff a little over a year ago) are new a fifth ptz was added and is currently off line as are the first four. We have 2 ptz and communications in construction. (And a third on the shelf developer funded pending favorable economic conditions). We expect to activate remote video detection monitoring today where we have extended ethernet over utp wire pair all as part of an in-house extension of communications to an unconnected corridor.	My participation in this actually seems pointless as the much needed ITS funding will not reach me. My ITS needs where rated seventh of seven behind a sidewalk through an interchange, a bike trail segment, a double decker bus, and a transit stop, all of which were more regionally significant than I(although I doubt any of them could match my C/B).
<b>City of Redmond</b> Paul Cho Bruce Newman	16 CCTV live, 40 by end of 2008. Replacing signal controllers with Econolite ASC/2, and installing four Econolite ASC/2M master controllers. Expanding fiber optic and copper networks throughout most of City and to each of the signals and installed wireless communication	(no comment)
<b>City of Seattle, SDOT</b> Adiam Emery	Adding additional 55 CCTV by the end of 2009, traffic responsive on two corridors, working on traffic flow map, two corridors will be out fitted with License plate reader for travel time.	I need to get back to you on the budget for maint. and operation
<b>King County</b> Aileen McManus	We have a total of 40 cameras installed and on the MyCommute Website, 3 additional to be installed in 2008. A total of 26 controllers connected into the ACTRA central system and 20 controllers into the icons system with an additional 17 by the end of 2008 or first quarter of 2009. King County TCC connected to 3 cities and WSDOT, connections to 2 more cities by the end of 2008 or early 2009. Four ITS corridor projects completed (total including those mentioned in 2005) 3 additional ITS corridor projects under design for 2008/2009 construction.	Under question 29, King County traffic owns and maintains the fiber and equipment for the ITS corridor projects, but leases Cable modems and DSL modems from private carriers for remote camera locations. Also reliant on King Count INET for connection to Kirkland and to the King County Renton shops.
<b>Pierce County</b> Marlene Ford	None	(no comment)
<b>Snohomish County</b> Jim Bloodgood	Installing fiber on our key corridors	(no comment)
<b>WSDOT NW Region</b> Kevin Mizuta	HOT Lanes Automated license plate readers Central signal control (i2TMS)	(no comment)