

COUNTY ENGINEERS' AND PUBLIC WORKS DIRECTORS' MANUAL

BOOK 1 - DESK MANUAL



**WASHINGTON STATE
COUNTY ROAD ADMINISTRATION BOARD
OLYMPIA, WASHINGTON**

FEBRUARY 2005 UPDATE

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1.A. PURPOSE AND SCOPE OF THE MANUAL

This County Engineers' and Public Works Directors' Manual has been assembled by the County Road Administration Board to serve as a general reference document for both new and veteran county engineers and county public works directors (directors). The Manual includes basic information that will be of use to any new County Engineer and discusses in some detail many of the issues that engineers and directors encounter on a regular basis as they carry out their assigned duties and responsibilities. As a minimum, a short discussion of various topics is presented and the appropriate RCW or WAC is cited to provide a reference point from which to begin more exhaustive research.

This manual is a product of CRAB's continuing training program for county engineers, public works directors, and management staff. While it is directed primarily at new county engineers and directors, because of the increasing complexity of county government it is encouraged as both a refresher and for other managers and administrators to become familiar with the great variety of requirements faced daily. This manual will serve as the primary reference for future training sessions.

The manual is a living document – as new or updated information becomes available, it will be included. All counties are invited to comment and offer corrections and additions as appropriate. Send any comments for future updates to Al King at al@crab.wa.gov.

1.B. WASHINGTON'S TRANSPORTATION ENVIRONMENT

With a total population of over 5.8 million and a land area of 66,582 square miles, the state of Washington is comprised of thirty-nine counties and 279 incorporated cities. Statutory governance of the state is provided through the Revised Code of Washington (RCW) and the Washington Administrative code (WAC).

The Transportation Resource Manual, prepared by Legislative staff, summarizes the state's transportation system like this:

"Washington's transportation system is an elaborate network of roads, routes, and runways, governed and operated by public and private entities, and supported through a myriad of funding combinations comprised of federal, state, and local taxes and private capital.

The state is responsible for planning, maintaining, and enhancing 7,046 miles of highways that support over 4 million Washington drivers who drove over 52 billion miles in CY 1999. Washington operates 16 airports and provides technical and financial assistance to many others. The state operates a fleet of 29 ferries that carry each year over 11 million vehicles and 26 million passengers. Its state patrol monitors highways, while other agencies license vehicles, help local governments, and manage traffic safety programs.

Regional and local governments also have significant responsibilities related to the transportation system. Regional transportation planning organizations (RTPOs) review and coordinate city and county land use and transportation planning. Counties plan, maintain, and enhance

40,407 miles of county roads and cities do the same for 14,130 miles of streets. All city and county governments construct and maintain bridges and trails, while some even operate ferry systems. Twenty-six transit systems, which travel throughout their respective regions, operate fixed-route systems and provide transportation for the elderly and disabled. In 1999, these systems provided over 164 million passenger trips. Many of them also coordinate vanpool and carpool programs.

Not all of the transportation system is operated by the government, however. Private companies provide intercity bus and commercial air service, and private trucking firms carry vast quantities of consumer goods and raw materials. They also operate freight rail lines, airports, taxi cabs, and airporters.

Washington depends heavily on federal funding for most of its transportation system. Before the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA), the federal government's programs favored highways and did little for congestion management or air quality. Since then, federal funding has helped Washington's policy makers support multimodal transportation policy plans that are also environmentally sensitive. The Transportation Equity Act for the 21st Century (TEA 21), enacted in 1998, carries forward the ISTEA philosophy and adds three new highway discretionary programs.

Policy makers draw upon almost 60 sources of state funds to support their transportation system; the largest is the motor fuel tax, which provides state and local governments with \$700 to \$800 million per year. The Legislature appropriates the state's share of this tax money in its biennial and supplemental budgets, and the rest is distributed to local jurisdictions by formula.

The Legislature has also given local governments the authority to raise taxes for their own transportation programs. It has permitted transit agencies to use locally generated tax revenues to match motor vehicle excise tax revenue."

While this provides a comprehensive overview of the state's transportation system, it does little to identify the large role that counties play in the ongoing operation and maintenance of that transportation system.

1.C. THE COUNTIES' ROLE

The state's roadway network totals nearly 79,000 centerline miles, distributed approximately as follows: 7,000 miles of state highways; 40,000 miles of county roads; 13,000 miles of city streets; and 18,000 miles of other roads, including State Park, Indian Reservation, U.S. Forest, and National Park roads.

The primary transportation responsibility of the thirty-nine Washington counties consists of the management of over 40,000 miles of roads and 3,180 bridges (20 feet or longer) in the unincorporated areas across the state. Most of the statutes that address those responsibilities are found in RCW 36.75 through RCW 36.88. Each county must employ a professional Civil Engineer, licensed in the state of Washington, who has "...supervision, under the direction of the board, of establishing, laying out, [and]

maintaining all county roads of the county.” The County Road Administration Board provides oversight of the county road departments’ adherence to statutory requirements.

A summary of pertinent information about county road department programs and resources is listed below:

1.C.1. Inventory

ROAD MILEAGE	Urban	5,158
	Rural	<u>35,047</u>
	Total	40,205
BRIDGES ¹		3,206

1.C.2. Funding Sources

Funding for county road departments is achieved through a portion of the Motor Vehicle Fuel Tax, local property tax road levies, other local sources such as timber revenues, and several Federal and State grant programs. The following list is generic, since many of the grant programs are competitive among the counties.

MOTOR VEHICLE FUEL TAX (MVFT)

(RCW 46.68.090)

The MVFT, presently 28¢ per gallon, has historically been distributed based on a complex combination of pennies and percentages. In 1999, the state Legislature amended RCW 46.68.090 to simplify MVFT distribution, which is now based on specific percentages of the 23¢ tax. In 2003 they added 5¢ for only WSDOT projects.

For distribution breakouts see Figure 3-1 of section 3.

LOCAL PROPERTY TAX

(RCW 84.52.043)

Maximum County Road Levy \$2.25/\$1000 of assessed valuation
 (Most counties do not impose the maximum.
 See CRAB Annual Report for actual levy amounts)

LOCAL OPTION TAXES

(RCW 82.80)

Several alternatives were granted by the 1990 Legislature for use by local agencies. Three of those available to counties are:

- Motor vehicle fuel tax at 10% of the statewide MVFT.
 (No counties have implemented.)
- Vehicle license fee of up to \$15 per vehicle.²

¹ Defined as structures 20 feet or greater in length.

² I776, passed by voters in November 2002, impacts the ability of counties to utilize this option.

(Four counties have implemented at \$15.)
Commercial parking tax.
(No counties have implemented.)

FEDERAL AID PROGRAMS

Surface Transportation Program (STP) of TEA-21.
(Revenues are regionally distributed to projects selected by local representatives of all transportation modes.)
Bridge Replacement (BRS/BROS).
(Competitively allocated according to statewide need.)

1.C.3. Programs and Administering Agencies

Grant programs for Washington counties are administered through three agencies: the County Road Administration Board (CRAB) which also oversees road department adherence to statute; the Transportation Improvement Board (TIB); and WSDOT Highways & Local Programs (H&LP) Division. Below is a list of the major transportation funding programs that the counties depend upon.

Fuel Tax Distribution (formula allocation) – CRAB

Rural Arterial Program (competitive) – CRAB

County Arterial Preservation Program (allocation) – CRAB

Freight Mobility Strategic Investment Board – FMSIB

Urban Arterial Trust Account (competitive) – TIB

Transportation Improvement Account (competitive) – TIB

Transportation Equity Act for the 21st Century (TEA-21) (competitive) – H&LP

Federal Bridge Replacement (competitive) – H&LP

In addition, counties may be eligible to apply for low interest loans from the Public Works Trust Fund.

1.D. THE ROLE OF THE COUNTY ROAD ADMINISTRATION BOARD

1.D.1. Statutory Responsibilities

ORGANIZATION AND MISSION

The County Road Administration Board (CRAB) is a nine-member board organized under the provisions of RCW 36.78.010 through 36.78.110 for the purpose of establishing and administering standards of good practice for county road departments throughout the state and for distributing gas tax revenues to the counties. CRAB is unique in that the Board is composed of six current county commissioners and/or council members and three county engineers all of whom are appointed by the Washington State Association of Counties (WSAC); thus the legislature allows the counties to regulate themselves. CRAB has a full time staff to accomplish day-to-day functions and to provide information and support to the Board members.

STANDARDS OF GOOD PRACTICE

RCW 36.78 requires CRAB to establish, by rule, Standards of Good Practice for the "administration of county roads and the efficient movement of people and goods over county roads". The current Standards are contained in WAC 136-12 through 136-70. CRAB verifies compliance with the Standards through various reports due throughout the year. In order to help counties to comply with the standards, CRAB staff provides a variety of resources and assistance.

CERTIFICATE OF GOOD PRACTICE

Annually, each county engineer and either the chair of the board of county commissioners or the county executive must certify that the county has operated in compliance with the Standards of Good Practice. Based upon this certification, the annual Bridge Inspection Report, and biennial performance audits, CRAB issues Certificates of Good Practice to the State Treasurer, which allows disbursement of gas tax revenues to the individual counties in the following year.

GRANT PROGRAMS – RAP AND CAPP

In response to evaluations of county road needs, and with support from county commissioners and county engineers, CRAB has been successful in receiving legislative approval and funding for two grant programs – the Rural Arterial Program (RAP) in 1983 and the County Arterial Preservation Program (CAPP) in 1990.

Between these two programs some \$28 million per year is made available to counties for the reconstruction of the county rural arterial system and for the preservation of both rural and urban paved arterials.

Specific information on these programs is contained in the revenue section of this manual.

COUNTY ROADLOG AND MVFT DISTRIBUTION

Prior to 1985, the WSDOT was responsible for maintaining the county roadlog. In addition to providing an important data element for the computation of each individual county's share of the Motor Vehicle Fuel Tax (MVFT or 'Gas Tax') by WSDOT, the roadlog information also served as part of the periodic reports furnished to the Federal Highway Administration by WSDOT. Until 1985, WSDOT, through the former State Aid Division (now H&LP) was the state agency responsible for the MVFT distribution to the counties in cooperation with CRAB.

In 1985, with the mutual agreement of both WSDOT and CRAB, the responsibility of maintaining the county roadlog as well as the sole responsibility for the county distribution of the MVFT was legislatively transferred to CRAB. To keep CRAB overhead low and to encourage the counties to take ownership in the roadlog, CRAB developed a special roadlog software package that enabled each county to maintain its roadlog at its own offices and to send updates annually to CRAB. The roadlog software was installed by CRAB in each county in 1987. CRAB was also able to purchase an appropriate desktop computer for each county to host this software. As a result, CRAB staff effort for the annual

roadlog updates and the biennial calculation of the gas tax distribution factors has been kept to a minimum. The original roadlog update software was greatly expanded and upgraded into the comprehensive County Road Information System (CRIS), which is in use in all counties as a major road management tool. Its successor, Mobility, has recently been released and provides the opportunity for even better management of the counties' road systems in a highly user-friendly way.

See the Revenue Section for a more detailed discussion of the roadlog and MVFT distribution processes.

CAPITAL FERRY PROGRAM

There are currently four counties that operate their own ferry systems – Whatcom, Skagit, Pierce, and Wahkiakum. Although the state does provide some operational subsidy [RCW 47.56.720 and .725] and regular highway-related grant programs can be used for the landing facilities, actual replacement of the very expensive ferry vessels was without a direct grant assistance program until 1991 when CRAB received legislative approval for a capital ferry program. Both RCW 47.56.725 and RCW 46.68.090 were amended to permit CRAB, with approval by the legislature, to set aside before the normal distribution a portion of the counties' share of gas tax for a capital ferry grant program. Appropriate administrative rules, contained in WAC 136-400, were adopted by CRAB in 1991 to manage this innovative program.

Any county that owns and operates its own ferry system should become familiar with the above provisions as well as the basic statute under which they operate, RCW 36.54.

1.D.2. Functional Areas and Services

OVERVIEW

The mission of the County Road Administration Board is to preserve and enhance the transportation infrastructure of Washington Counties by providing standards of good practice, fair administration of funding programs, visionary leadership, and integrated, progressive, and professional technical services.

Two of the agency's major functions are to assist counties in complying with the standards of good practice and to support enhanced professionalism in all the county road departments of the state.

EXECUTIVE SERVICES

The CRAB Executive Team includes its Executive Director, Deputy Director, Assistant Director, and Executive Assistant. The Executive Team is responsible, under the direction of the Board, for implementing agency policy and for managing agency staff. They work closely with WSAC and the legislature on all issues affecting transportation in the State of Washington, and in particular county road programs. Viewing state, county, and city transportation systems as a seamless entity, CRAB interfaces with appropriate agencies and representatives on a continual basis.

At the staff level, CRAB provides ongoing coordination with other city, county, and state organizations and provides a variety of grant programs and information resources to the counties.

ENGINEERING SERVICES

The Engineering Services (ES) Division, under the direction of the Deputy Director, includes the Intergovernmental Policy Manager, Maintenance Programs Manager, Inventory Systems Engineer, and Grant Programs Engineer. This small staff, all of whom hold Professional Engineer licenses, is directly responsible for:

- All functions related to the administration of the Rural Arterial Program, the County Arterial Preservation Program, and the Capital Ferry Program;
- All functions related to the maintenance of the county roadlog and the computations and updates to the distribution of the counties' share of the motor vehicle fuel tax;
- Management of the reports and other information necessary for recommendations related to the Annual Certificate of Good Practice for each county.

Other functions of the division include:

- Providing guidance and research on statutory and regulatory issues affecting county road and public works departments;
- Providing assistance in representation of county engineer interests on a variety of state-level committees and task forces;
- Providing design and traffic engineering assistance to counties as requested, including consultant selection assistance;
- Providing liaison services on behalf of county engineers with various state agencies, especially the H&LP Division of WSDOT.

Engineering Services staff participates in various interagency work groups and task forces dealing with topics of importance to county public works departments. Some of the issues that individuals within the division are currently involved with are emergency management, infrastructure funding coordination, environmental permitting and process streamlining efforts, urban boundary designations, and urban design issues. The division also keeps abreast of emerging issues that impact county public works departments. Current topics of concern are salmon recovery, stormwater management guidelines and regulations, rural mobility, and asset management. Beginning in 2001, a major focus of the ES Division has been developing a Maintenance Management System and assisting the counties in its implementation.

Included in Engineering Services' functions is the provision of transportation planning support. The goal is to keep County Engineers informed of changes in planning requirements that may affect the development of the counties' transportation programs. CRAB has worked directly with counties to assist them in using appropriate levels of technology in developing their plans. In addressing the major issues of the Growth Management Act (GMA), CRAB has presented workshops on level of service standards and concurrency management systems.

CRAB acts as a clearinghouse for information requests, questions, and the exchange of ideas. As part of this effort, the ES Division strives to be a resource for county engineers, providing an economy of scale in such areas as developing model policies, resolutions, ordinances, and other model documents that counties may adapt for their own use. With an emphasis on good communication, the division works with state transportation officials, resource agencies personnel, and others to assist public works departments as they strive to meet the transportation needs of their counties.

Engineering Services also strives to stay informed and to share information about emerging issues impacting county public works departments. Issues currently meriting such attention are the Endangered Species Act, GASB financial reporting requirements, and asset management. Beginning in 2001, a major focus of the ES Division will be on developing a Maintenance Management System and assisting the counties in its implementation.

A final responsibility of the ES Division is the maintenance and updating of the county Engineers' and Public Works Directors' Manual and the provision of training to County Engineers and their staffs.

INFORMATION SERVICES

The Information Services (IS) Division, under the direction of the Assistant Director, is made up of a team of professionals from the software applications, systems and engineering disciplines. Within the overall mission of CRAB, to ***preserve and enhance the transportation infrastructure of Washington Counties by providing...integrated professional technical services*** and in order to comply with our legislative mandate to ***ensure effective use of technology in the counties***, the Information Services Division has a specific mission: The mission of the IS Division of CRAB is to provide the county road departments of the State of Washington with information technology systems, consultation, and support that will make them more effective and efficient and/or improve their working environments.

Our efforts to accomplish this mission are diverse and complex yet could be described in these four areas:

- *Provide engineering design software, training, and support that enable county design personnel to maximize design through enhanced revision and alternative analysis using automated systems.* To accomplish this, CRAB negotiated a master contract with Eagle Point Software of Iowa. Through this contract CRAB purchased the first 210 licenses for this state-of-the-art civil engineering design software for Washington Counties and continues to make further licenses available for about one-tenth the list price. A design engineer is on staff at CRAB to provide support beyond that which **Eagle Point** provides and to offer free training and consultation to county staff on the design discipline and design software.
- *Develop and provide management systems software, training, and support that make the best use of technology to preserve infrastructure investment,*

automate tedious tasks, suggest management strategies, and ensure consistency, equity and informed decisions in the business of road departments. In the mid-1980's, CRAB developed an application called the County Road Information System (**CRIS**). Although **CRIS** has been an effective management tool in our counties for at least 15 years, it was developed on yesterday's technology and so CRAB has developed a replacement for **CRIS**, called **Mobility**, using tomorrow's technology. **Mobility**, like **CRIS**, inventories your road system and all of its appurtenances, as well as having management systems for pavement, maintenance, safety, and more. In the coming years **Mobility** will respond to the ever changing needs and challenges of our county road departments.

- *Initiate and foster forums, conferences, workshops, and other venues of networking and communication that encourage the sharing, cooperative, and synergistic environment our county road departments enjoy across the state.* Our staff, though very accomplished and professional, doesn't have all the answers or even know many of the questions. CRAB, because of its structure (unique in the nation), has become a "pipeline" of information between the counties and other transportation entities. CRAB staff not only creates opportunities for the exchange of information and solutions but also represents our counties' interests at numerous venues where county personnel are not always able to attend.
- *Provide a timely, useful, and unique response to special county needs where information technology solutions apply.* CRAB provides solutions to the uncommon problems that arise in Washington counties. When a county does not have access to specific information or expertise needed to solve a problem or when they have a temporary lack of resources, they can call on CRAB for assistance.

CRABOARD MEMBERS – EFFECTIVE JANUARY 1, 2005

Member	Term
Commissioner Dave Carey Walla Walla County PO Box 1506 Walla Walla WA 99362 Phone: (509) 527-3200 Fax: (509) 527-3235 E-mail: carey@hscis.net	June 2007
Commissioner Dean Burton, Vice-Chair Garfield County PO Box 278 Pomeroy WA 99347 Phone: (509) 843-1391 Fax: (509) 843-3941 E-mail: dnburton@pomeroy-wa.com	June 2007
Jim Whitbread, P.E., County Engineer Stevens County Public Works 185 E. Hawthorne Colville, WA 99114-2629 Phone: (509) 684-4548 Fax: (509) 684-7557 E-mail: jwhitbre@co.stevens.wa.us	June 2007
Commissioner Greg Partch Whitman County N 400 Main Street Colfax, WA 99111 Phone: (509) 397-6200 Fax: (509) 397-6355 E-mail: maribethb@co.whitman.wa.us	June 2006
Commissioner Patty Lent Kitsap County 614 Division Street, MS-26 Port Orchard WA 98366-4699 Phone: (360) 337-7146 Fax: (360) 337-4832 E-mail: plent@co.kitsap.wa.us	June 2006
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Commissioner Ray Thayer Klickitat County 205 S Columbus Goldendale, WA 98620 Phone: (509) 773-4612 Fax: (509) 773-6779 E-mail: bocc@co.klickitat.wa.us	June 2005
Vacant	June 2005
Robert Breshears, P.E., County Engineer Lincoln County Public Works 27234 SR 25 North Davenport WA 99122-0368 Phone: (509) 725-7041 Fax: (509) 725-4467 E-mail: bbreshears@co.lincoln.wa.us	June 2005
Susan Cruise, CRAB Attorney 905 Plum Street, Building 3 PO Box 40113 Olympia WA 98504-0113 Phone: (360) 753-4963 Fax: (360) 586-6847 E-mail: susanc@atg.wa.gov	

FIGURE 1-1

ORGANIZATION CHART

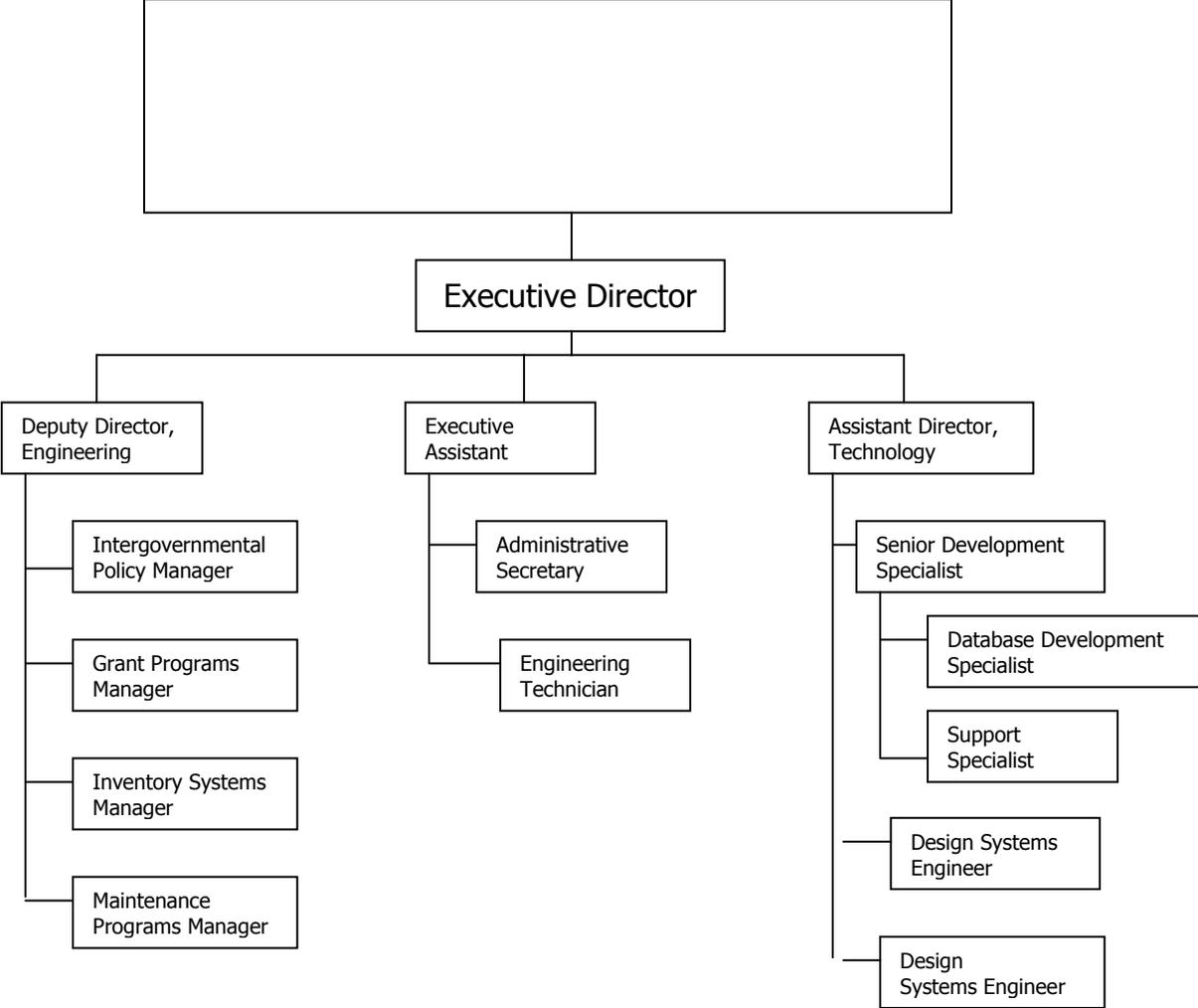


FIGURE 1-2

CRAB STAFF

Dial
(360) 753-5989
OR
(360) 664-3299 for Auto Attendant and enter extension

Name	Extension	E-mail
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FIGURE 1-3

2.A. INTRODUCTION³

Counties existed during Washington's territorial days in the mid- to late-1800's and were recognized in the state constitution adopted in 1889. Washington counties are unique governmental organizations with responsibilities for many types of services for their citizens. They function in three basic roles. First, they act as **agents of the state** in providing many services, such as the prosecuting attorney, public defender, superior court, juvenile court, elections, property tax administration and collection, etc. Second, they provide strictly **local government services** in the unincorporated areas such as sheriff's patrols, developing and maintaining county roads and bridges, providing parks and recreation services, etc. Lastly, they act as **regional governments** when providing Medic I emergency medical care services, central dispatch services for police and fire departments, public health services, senior services, veterans' assistance, emergency management services, and solid waste management.

Historically, the role of counties has been to serve as an administrative arm of the state – maintaining records, providing courts and law enforcement, building roads, assessing property and collecting taxes, and conducting elections. Counties still perform these functions, as well as others, through full-time elected officials including a board of county commissioners (or council members and an executive in charter counties), a sheriff, judges, assessor, treasurer, prosecutor, auditor, superior court clerk, and coroner or medical examiner. In noncharter counties, the commissioners function as both the legislative and executive body.

Today, there are 39 counties in Washington ranging in population from 2,400 to over 1.6 million. Of the 39 counties, 34 operate under the commission form of government provided by state law. Five of the counties have adopted "home rule" charters as provided for in the state constitution and legislation enacted in 1948. The five home rule charter counties are Clallam, King, Pierce, Snohomish, and Whatcom.

2.B. COUNTY FORMS OF GOVERNMENT⁴

Article XI, §§ 4 and 5 of the state constitution authorizes the legislature to create a uniform system of government for counties. State law relating to counties is generally collected in Title 36 RCW. The uniform plan of county government provided by state law is the three-member commission form.

The constitution was amended in 1948 to provide counties the option of adopting a "home rule" charter. Adoption of a home rule charter allows a county to choose a different form of government from the commission form specified by statute. Finally, Article XI, § 16 was added to the state constitution in 1972 to provide the option of a consolidated city-county government. Although some of the larger cities and counties have considered this option, no consolidated city-county governments have yet been created in Washington State. Fully understanding county government also requires knowledge of the independent county elected officials provided for by the constitution and statutes.

³ From Municipal Research & Services Center, Seattle WA.

⁴ Ibid.

2.B.1. Commission Form of County Government

The form of government for counties provided in state law is the commission form. All noncharter counties must adopt this form of government. The only method by which a county can entirely change its form of government is to adopt a "home rule" charter. There are some population-based differences in the state laws governing counties, but the commission form of government is the same for all 34 noncharter counties.

The commission form of county government is often referred to as the "plural executive" form of government. It is the oldest and most traditional county organizational structure. The county governing body consists of a board composed of three commissioners who serve as the legislative body and also perform executive functions. Counties with populations greater than 300,000 may increase the size of the commission from three to five members. No single administrator or executive oversees the county's operations under the commission form of government.

The board of county commissioners shares administrative and, to some extent, legislative functions with the independently elected county officials, including a clerk, treasurer, sheriff, assessor, coroner, and auditor (or recorder). Other independently elected county officials and court officers include the county prosecuting attorney and the judges of the County Superior Court. Although the county commissioners establish the budget and act as the county legislative body, the independent nature of the other county elected officers make county government quite different from other forms of municipal government that have separate legislative and executive branches. The number of independent, elective county officers provided for in the constitution and state law is a distinguishing feature of county government.

2.B.2. "Home Rule" Charter Form of Government

Article XI, § 4 of the state constitution was amended in 1948 to provide the option for counties to adopt "home rule" charters to provide their own form of government. This home rule provision does not change the role and authority of counties, but it does allow counties to provide for their own form of government different from the commission form prescribed by state law. By adopting a home rule charter, county voters can provide for appointed county officers to perform county functions performed by independent elected officials in noncharter counties and can change the names and duties of the county officers prescribed by the constitution and state law. Home rule charters may not, however, change the elected status and duties of the county prosecuting attorney or superior and district court judges, or the jurisdiction of the courts.

AUTHORITY AND FORM OF GOVERNMENT OF A HOME RULE CHARTER COUNTY

Home rule charter counties have broad authority to provide for purely local governance issues. The State Supreme Court has ruled, however, that, under the state constitution, county home rule charter rights are subordinate to express state law requirements that go beyond matters of local concern. The court has concluded that the state constitution expressly relegates county home rule

charters to an inferior position vis-à-vis “the constitution and laws of this state” where the matter involves public policy of broad concern, expressed in general laws.

After adoption of a charter, the powers, authority, and duties of county officers provided for by state law are vested in the county legislative authority, unless the charter expressly assigns powers and duties to a specific officer. The duties of the board of county commissioners and other elected officers may also be modified by charter. The board of commissioners and other elected officers may be entirely replaced, subject to certain restrictions.

HOME RULE CHARTER OPTION FOR POWER OF INITIATIVE AND REFERENDUM

Another reason for adopting a home rule charter is to provide the powers of initiative and referendum to the citizens of the county. All charter counties have provided for initiative and referendum powers.

Legislation was proposed in the 1997, 1998, and 1999 legislative sessions which would have allowed the board of county commissioners in noncharter counties to similarly authorize the use of initiative and referendum without the need to adopt a home rule charter. However, none of these proposals have been adopted.

2.C. INDEPENDENTLY ELECTED OFFICIALS⁵

Counties differ significantly from cities in the number of independently elected officials with unique constitutional and statutory responsibilities. Although home rule charter counties have the ability to change the status and function of some of the county elected officials, certain limitations are provided in the state constitution. Counties are run by full-time elected officials including commissioners (or council members and an executive), assessor, auditor, superior court clerk, coroner or medical examiner, prosecuting attorney, sheriff, and treasurer.

It is imperative, especially in traditional, noncharter counties, for the county engineer to have a positive working relationship with all of the elected officials. Following is a brief introduction to the responsibilities of the separately elected officials whose duties may have an impact on the road department.

2.C.1. Assessor [RCW 36.21]

The primary responsibility of the county assessor is to determine the value of all taxable real and personal property in both the incorporated and unincorporated areas of the county for the purpose of determining the tax liabilities of the taxpayers in the various taxing districts in an equitable manner. The county assessor generally maintains the tax assessor’s parcel maps and legal descriptions of tax parcels as well as other records relating to property valuation. The County Engineer can expect to interact with the Assessor’s Office regarding GIS issues.

⁵ Municipal Research & Services Center, Seattle WA.

2.C.2. Auditor [RCW 36.22]

The county auditor has a broad range of duties and responsibilities involving specific statutory functions and county financial administration. The auditor examines and audits county financial records and may prepare the preliminary county budget for the board of county commissioners. The auditor also has functions relating to special districts. Other functions and duties of the county auditor vary among counties, and the auditor's role in county financial administration is often revised in charter counties. Many of the auditor's statutory duties are not associated with county finance.

The primary statutory responsibilities of the county auditor are: (1) recording (recording of real property documents such as deeds and other recorded documents); (2) licensing (licensing, titling, and registration for motor vehicles and watercraft, issuing various licenses such as marriage and business licenses, and acting as agent for the state Department of Revenue in collecting certain fees and taxes); (3) elections and voter registration (acting as ex-officio supervisor of elections and administering voter registration and elections); (4) county financial audit and administration (duties may include auditing county expenditures, serving as ex-officio supervisor of the State Auditor's Office Division of Municipal Corporations, preparation and administration of the county budget, and other county fiscal management functions); and (5) clerk of the board of county commissioners (if the board of commissioners does not reassign that function).

Interaction of the County Auditor's Office and the road department usually occurs in the areas of budgeting, budget cost controls, and internal auditing as well as issues relating to the recording of documents.

2.C.3. Prosecuting Attorney [RCW 36.27]

The county prosecuting attorney has major responsibilities as the legal representative of the state and counties in actions and proceedings before the courts and other judicial officers. The prosecuting attorney is the legal advisor and attorney for all county elected and appointed officials. The prosecuting attorney prosecutes violators of state law and county code in the county superior and district courts and appears for and represents the state and county in other types of criminal and civil actions. The prosecuting attorney represents the county whenever the county is a party to a legal action and acts as general legal advisor to all county officers. The state legislature has restricted the ability of the board of commissioners or county council to contract with any other attorney to perform any of the functions of the prosecuting attorney and any contract must be approved by the presiding judge of the county superior court.

The office of prosecuting attorney is unique among county elected officials in that the elected status and authority and responsibility of the prosecuting attorney cannot be changed by county "home rule" charter. The prosecuting attorney has the same role in charter and noncharter counties.

The prosecuting attorney's office provides general legal advice to the County Engineer and/or Public Works Director and represents the department in legal actions when necessary.

2.C.4. Sheriff [RCW 36.28]

The county sheriff is the chief executive officer and conservator of the peace of the county. The sheriff has a number of duties relating to: (1) law enforcement and public safety, (2) jails and confinement facilities, and (3) civil functions for the court system. Counties have the option of creating a department of corrections to be in charge of the county jail rather than the sheriff. Many county sheriffs are involved in county emergency services functions, and a sheriff may serve as the Director of Emergency Services for the county.

The Sheriff can be an important ally for the road department when it comes to accident investigations and speed limit enforcement. In addition, sheriff's deputies are often called upon to provide traffic control at county construction sites and to provide enforcement of county weight restrictions and other commercial vehicle regulations.

2.C.5. Treasurer [RCW 36.29]

The county treasurer is the custodian of the county's money and the administrator of the county's financial transactions. In addition to services for the county, the county treasurer provides financial services to special purpose districts and other units of local government, including the responsibility to receipt, disburse, invest, and account for the funds of each of these entities. The county treasurer is also responsible for collection of various taxes, including legal proceedings to collect past due amounts. The county treasurer has other miscellaneous duties such as conducting bond sales and sales of surplus county property.

2.C.6. County Executive

The elected office of county executive exists only in the four charter counties (King, Pierce, Snohomish, and Whatcom) that have adopted "home rule" charters providing for a council-executive form of government. There are no constitutional or state statutory provisions addressing the position of county executive. The authority and duties of the county executive can only be determined by a review of the individual county charters. In general, counties adopting the council-executive form of government have a county council that serves as a legislative body establishing policy and an elected executive responsible for the implementation of council policies and the day-to-day administration of county government functions and services. Administrative functions performed by the board of county commissioners in noncharter counties are delegated to the county executive in the charter or by individual council ordinances and resolutions codified in the county code.

Some noncharter counties operating under the commission form of government have created the appointed position of county administrator. The County Administrator works directly for the Board and often takes the lead in preparing

the budget. In addition, he/she may manage, under direction of the Commissioners, the employees who work in departments that report to the Board.

2.D. COUNTY COMMISSIONERS/COUNTY COUNCILS

The board of county commissioners (or, in most “home rule” charter counties, the county council) is the legislative authority for the county. The county commissioners also serve as the chief administrators for most county operations. In the four charter counties with a council-executive form of government, the county council is the legislative authority, and most administrative functions have been assigned by charter to an elected county executive. Depending upon the county charter and ordinances, the county council or board of commissioners may also have quasi-judicial duties, such as hearing appeals of local land use decisions. Some county commissions and councils have established a hearing examiner system and appoint a hearing examiner to hold hearings on quasi-judicial land use matters.

The commissioners or council members adopt ordinances, resolutions, and motions; levy taxes; appropriate revenue; and adopt the final budget for the county. The legislative body generally confirms appointments to county boards and commissions. The commissioners or council members generally appoint the members of the boundary review board and planning commission in counties that have created this board and commission. The commissioners can also sit as the board of equalization (basically the county board of property tax appeals) to review disputed assessments.

The commissioners have direct responsibility over the road department per RCW 36.32.120(2) which states that they are responsible to

“...lay out, discontinue, or alter county roads and highways within their respective counties, and to do all other necessary acts relating thereto...except within cities and towns which have jurisdiction over the roads within their limits.”

and RCW 36.32.120(4) which states that they are responsible to

“...fix the amount of county taxes to be assessed...and cause the same to be collected...”

RCW 84.52.043 provides a means for the commissioners to perform a “levy shift”, which allows them to increase the general levy and decrease the road levy. In addition, RCW 36.33.220 allows the commissioners to spend tax money anywhere they desire for any service to be provided in the unincorporated part of the county and RCW 36.82.040 allows for the diversion of road levy funds into the general fund. In short, the commissioners are responsible for the roads in the county and they have the ability to move taxes collected expressly for county roads to other uses. These issues are more fully discussed in Section 3 – Fiscal Issues.

The commissioners have responsibility for all county functions not under the auspices of the separately elected officials, i.e., general county government as needed to effectively and efficiently run the county. In the more rural counties, the road department is usually the largest, most dominant department. Planning, building, and even health may be small in size, personnel, and budget; and parks may not exist as a separate

department. In the urban and growth counties, planning and/or growth management is of increasing importance. As a result of growth, the permit process which includes environmental health, development permits, and even building permits becomes a larger function. Law and justice problems may be overwhelming. In the urban counties, other public works functions may become larger. Stormwater, solid waste, sewer & water, and possibly Geographic Information Systems (GIS) may even be separate departments.

Commissioners respond to complaints and, as counties urbanize, the primary complaints shift from potholes and gravel roads to congestion, the permit process, and law and justice. The basic organization of the county government will vary depending on which issues are of primary importance in a county or how the commissioners believe they may best respond to the citizens' needs. Within the 39 counties, there are many different organizational structures. Very common is a public works department in which roads is one of several divisions. Sometimes there is a public services department in which public works is combined with planning and even environmental health. Often, the road department stands alone. Similarly, the technical qualifications of a director of public works or public services may not be the same as those of a county engineer. In some cases, especially in the more rural counties, the Public Works Director may be the Chief Administrative Officer (CAO) for the county. In any event and in all counties, the commissioners struggle to provide the best quality service at the least cost, and with the fewest number of employees.

In RCW 36.75, the direct responsibilities of the commissioners toward roads are even more clearly defined. Specifically, the county engineer is the agent of the board in road matters. All road activities are under the supervision and direction of the county engineer. The county engineer is an office of record for all proceedings, surveys, maps, etc. pertaining to roads.

2.E. PUBLIC WORKS DIRECTORS

As discussed in 2.D., the commissioners have the ultimate responsibility for roads, and RCW 36.75 clearly states that the county engineer is the agent of the commissioners in accomplishing their responsibilities in road matters. The county engineer or county road engineer is a specifically defined position with specific qualifications and responsibilities. [RCW 36.80]

Depending upon the structure of county government, the county engineer may report directly to the commissioners, or the county engineer may be part of a larger public works or public services department reporting to a director who in turn reports to the commissioners. Often a director of public works or public services is hired as a manager or administrator and does not have specific technical engineering expertise. The position of director of public works is not defined in state statute but is often created more for organizational efficiencies. RCW 36.75.010(5) states that the term "county engineer" includes the county director of public works when defining general responsibilities for roads and bridges. It is clear however that, when taken in context with other state laws, including RCW 18.43, the professional responsibilities must be met through a qualified and licensed professional engineer.

The relationship between the county engineer and the public works director may create an interesting situation where the engineer has specific duties and responsibilities

defined in the RCW, along with the professional license for liability, and must accomplish these duties for the commissioners while supporting the director. The Public Works Director usually handles the administration, fiscal support, and personnel issues for the department. This can work well for the engineer, freeing him/her to concentrate on the road issues.

2.F. COUNTY ENGINEERS

Unlike "Public Works Director", the term "County Engineer" (or "County Road Engineer") is clearly defined in the RCW. In most counties, the statutory duties of the County Engineer are only the beginning of the responsibilities that he/she actually has. All County Engineers should familiarize themselves with RCW 36.80, which outlines the basic requirements and duties of a county engineer.

2.F.1. Legal Issues and Responsibilities

LICENSING/BONDING/PERSONAL LIABILITY

- **Licensing:** Since 1937, the State of Washington has required that a person filling the position of County Engineer must be "...a registered and licensed professional civil engineer under the laws of the state, duly qualified and experienced in highway and road engineering and construction". [RCW 36.80.020] State law is specific as to the employment of county engineers. RCW 36.80.010 states:

"The county legislative authority of each county with a population of eight thousand or more shall employ a full-time county road engineer. The county legislative authority of each other county shall employ a county engineer on either a full-time or part-time basis, or may contract with another county for the engineering services of a county road engineer from such other county."

- **Bonding:** Each county has the discretion to decide if a "performance bond" should be required of its County Engineer. RCW 36.80.020 is explicit:

"Before entering upon his employment, every county road engineer shall give an official bond to the county in such amount as the board shall determine, conditioned upon the fact that he will faithfully perform all the duties of his employment and account for all property of the county entrusted to his care."

In the majority of the counties, there is a bond for several county officials, including the county engineer and the county then assumes all liability for the engineer.

- **Personal Liability:** One important aspect of serving as a county engineer is the issue of personal liability. Candidates should ascertain if the county provides "errors and omissions" coverage for actions performed in their official capacities.

Another area of potential hazard is one of violation of the Board of Registration rules governing licensed professional engineers. All engineers, and County Engineers are no exception, should become familiar with the statutory language in RCW 18.43 as well as the administrative rules in WAC 196. Public Works

Directors who wish to also assume the responsibilities of the County Engineer should make themselves knowledgeable as well as they consider that option.

VACANCIES

From time to time it will become necessary to replace a county engineer due to retirement, death, or other reasons. The statutes do not make any special provisions regarding a vacancy in the county engineer position. WAC 136-12, one of the earliest Standards of Good Practice, sets forth a process to be used when a county engineer vacancy occurs.

This WAC requires that a county take immediate steps to find a replacement and that, within five working days, to notify CRAB of the vacancy and the replacement process being used. Frequently a replacement cannot be secured immediately; therefore, a county may designate, by resolution, an acting county engineer for an interim period not to exceed six months. WAC 136-12-030 provides a means for extending this time limit if necessary.

If the acting county engineer is a Washington state licensed professional civil engineer, then he/she may perform all the regular duties of the county engineer. If not licensed, the legislative authority must designate some other licensed civil engineer to perform all the engineering duties during the interim period, with the acting county engineer performing only those functions not requiring a professional civil engineer's license.

When final arrangements for the employment of a new county engineer have been made, the county legislative authority or the county executive shall notify CRAB within five working days. Information to be included in the written notification is specified in WAC 136-12-045.

GENERAL AUTHORITY – ROADS

The primary statutory responsibility of the county engineer is roads. In addition to the duties set forth in RCW 36.80.030, there are innumerable other places in statute that reference a myriad of other duties and authorities discussed in the remainder of this section. RCW 36.80.030, "Duties of engineer" states:

"The county road engineer shall examine and certify to the board all estimates and all bills for labor, materials, provisions, and supplies with respect to county roads, prepare standards of construction of roads and bridges, and perform such other duties as may be required by order of the board.

He shall have supervision, under the direction of the board, of establishing, laying out, constructing, altering, improving, repairing, and maintaining all county roads of the county."

In matters relating to roads, the county engineer is the chief operating officer acting on behalf of the Board of County Commissioners or the County Council. Incumbents should be very familiar with RCW 36.75, which contains general provisions related to roads and bridges. Particular assignments of responsibility

are contained in RCW 36.75.020, .040, and .050. The broadness of this "assignment of power" is particularly clear in RCW 36.75.050, which says in part:

"The powers and duties vested in or imposed upon the boards with respect to establishing, examining, surveying, constructing, altering, repairing, improving, and maintaining county roads, shall be exercised under the supervision and direction of the county road engineer."

SURVEYING

Prior to 1937, each county had an elected County Surveyor. The issues of county roads and the role of the county engineer were completely overhauled in 1937, and the position of county surveyor vanished.

Unless a county engineer is also licensed as a land surveyor in the state of Washington, he/she may not practice the profession of surveying as described in RCW 18.43. This does not, however, prohibit the county engineer and his/her staff from performing such "surveying" as may be necessary for the development of plans – including defining road rights-of-way and easements – related to his/her official duties. In these cases, surveying does not constitute establishment of monumentation or division of lands, which is solely the purview of the licensed land surveyor.

Should any official monumentation be disturbed or destroyed by work done under the authorization of the county engineer, it must be appropriately reset as per RCW 58.09.130.

Several counties do have licensed surveyors on staff in the road or public works department and their expertise can be put to good use, especially on right-of-way matters. Licensed surveyors on staff are an excellent resource for the development of Geographic Information Systems (GIS). Should the county engineer need professional surveying services and not have such a person on staff, a local firm or individual can be contracted with as necessary under the provisions of RCW 39.80, "Contracts for Architectural and Engineering Services".

PLATS AND SUBDIVISIONS

RCW 58.17.110 requires that the legislative authority, before approving any subdivision, assures that appropriate provisions are made for public health, safety, and welfare, including – among a lengthy list – "...streets or roads, alleys, other public ways,...sidewalks and other planning features...."

RCW 58.17 also provides the county engineer certain authorities and responsibilities in the platting process. These authorities and responsibilities are further specified in each individual county's platting or subdivision ordinance and may vary substantially from county to county. The county engineer should become familiar with both the statute and the related ordinances of his/her county.

This issue is discussed more completely in Section 5.D. – Land Development.

TRAFFIC

One of the primary, highly visible, and technically exacting responsibilities of most county engineers is that of traffic control. In this context, it means acting on behalf of the county legislative authority (the "local authority" of the enabling statute RCW 47.36.060) to "...place and maintain such traffic devices upon public highways under their jurisdiction as are necessary to carry out the provisions of law or local traffic ordinances or to regulate, warn, or guide traffic."

Many counties have adopted, in part or in total, the Washington Model Traffic Ordinance, which simplifies and standardizes a wide variety of traffic control issues. It also establishes the position of Traffic Engineer and defines the responsibilities of that position.

This issue is discussed more completely in Section 5.B. – Traffic Engineering.

LEGAL REPRESENTATION/COUNTY PROSECUTOR

- **The Prosecuting Attorney:** In the normal course of conducting the business of the road or public works department, questions about legal responsibilities, authorities, and procedures will occur. The legal authority in the county is the office of the Prosecuting Attorney.

RCW 36.27.020 sets forth the duties of the prosecuting attorney:

"1) Be legal advisor of the legislative authority, giving them [it] his or her written opinion when required by the legislative authority or the chairperson thereof touching any subject which the legislative authority may be called or required to act upon relating to the management of county affairs;

2) Be legal advisor to all county...officers...in all matters relating to their official business, and when required draw up all instruments of an official nature for the use of said officers;

3) Appear for and represent the...county...in all criminal and civil proceedings in which ...the county...may be a party."

- **Getting Legal Advice:** When legal advice is needed, the prosecuting attorney's office is the place to go. Typically, the advice being sought relates to civil, rather than criminal, law and among the staff of the prosecuting attorney is one or more civil deputies who will deal with these questions and concerns. In larger counties, the public works department may have its own, specially assigned, civil deputy who works exclusively on public works issues.

Prosecuting attorneys and their deputies are busy people, and they may not have an extreme depth of knowledge about road and public works issues. Before approaching them it is a good idea to do the background work on the issue in question. The reason for this is twofold: First, the more thoroughly you research your issue and assemble the appropriate references and citations, the more likely you will get both a quick response and the answer

you expect. Simply tossing out the question, 'Can I ...?' will often get you an equally simple 'no'. Second, an important part of any county engineer's education is a good working knowledge of both Washington State statutes (the RCW) and Washington Administrative Code (the WAC). This is not to suggest that any attempt should be made to be one's own legal authority, but it will help you as a manager and administrator and it may even endear you to your prosecuting attorney.

- **CRAB Services:** Over the years, CRAB has accumulated a wealth of information including interpretations of statutes and other formal and informal legal opinions. CRAB staff members are not lawyers and we don't give definitive legal advice, but we may be able to offer some help in understanding issues and the context of problems or, at the very least, we can often direct you to someone who can answer your questions. Should a question or issue of statewide concern be brought up that falls within CRAB's areas of responsibility, CRAB does have its own assigned legal counsel from the State Attorney General's Office who can research an issue and provide an opinion.
- **You and Your Board:** A cautionary note: legal issues can easily get you into serious conflict with the board of county commissioners. Many county commissioners, especially those recently elected, are not familiar with the legal constraints and requirements that the county engineer is obligated by statute to follow. You may be directed to do something that is, in your opinion, neither ethically nor legally permissible. When these situations occur (and they will occur from time to time), you may respectfully disagree and suggest that the board seek the advice of the prosecuting attorney. Do not engage your board in an argument over the law! Neither you nor they are attorneys.
- **When You are Sued:** From time to time, in the normal course of doing the job of county engineer, someone (and this includes state and federal regulatory agencies) will be sufficiently upset with you and/or your department to bring suit. As soon as you think someone will bring suit over something your department has or has not done, you should advise your board so they will not be surprised. If the suit does materialize, it is important that both the board and the prosecuting attorney be brought on board. (One more reason for being familiar with the statutes and regulations that affect the road department is to be able to avoid most of the things that do get you in trouble.)
- **A Final Comment:** Within the structure of the statutes and accompanying administrative regulations, both at the state and federal level, CRAB has observed a wide variety of "attitudes" among the county engineers over the years. Some will run their departments very aggressively, pushing regulatory agencies and others to – and occasionally past – the limits of their endurance. Others have been reluctant in the extreme to do anything that could possibly be construed as "pushing the envelope". Each county

engineer must find his/her own comfort level, but a certain amount of assertive action is an important part of the pattern of strong leadership that is essential to the successful county engineer.

2.F.2. As A Public Official

RELATIONS WITH THE BOARD OR COUNCIL, ADMINISTRATORS, EXECUTIVES AND PUBLIC WORKS DIRECTORS

Across the state there is wide variety in both the position and authority of county engineers. In many cases, they report directly to the Board of County Commissioners. In others, there is a Public Works Director to whom they report. Home rule or charter counties will have an appointed or elected county executive or administrator who reports to a multi-member, elected council and often has been vested with many of the authorities of the more traditional Board. In several cases, the County Engineer and Public Works Director positions have been combined into a single position. One universal truth remains – the County Engineer “...serves at the pleasure of the board”. History is replete with examples of people who have learned this truth the hard way.

The secret to achieving harmonious and productive relationships with boards, councils, executives, administrators, and/or public works directors is simple. It merely requires having the following attributes: competence, integrity and judgment, reliability, and communication skills.

- You must be competent in your job. In other words, you must be properly qualified and capable. This does not necessarily mean that you are the most skilled engineer in your department, but it does mean that you are highly skilled as a manager and an administrator – you chiefly achieve your department’s mission through others. You need to know what your staff does, even if you are not an expert in the how of getting it done.
- You must have both personal and professional integrity and judgment. Weaknesses in these closely related attributes of the successful county engineer have been the downfall of many an otherwise good man or woman. Having integrity means that you have a standard of values and you adhere to them. It is a form of honesty related to both you and the people you work with. Judgment is defined as having the capacity to make sound and reasonable decisions. It is a close relative of common sense. The day-to-day work of the county engineer may generate either frequent or occasional situations in which you believe your integrity is being assaulted by a higher authority’s direct or indirect orders. In truth, for the experienced county engineer, these situations are rarely irreconcilable – and at this point, it is your good judgment that will see you through.
- Reliability is nothing more than being dependable - doing what you say you will do when you say you will do it. Also implied is an evenness of temperament in your dealings with others. In the “heat of battle”, it is easy to agree to an accomplishment that, upon reflection, you know cannot be done as expected. Take a little time to be thoughtful before you commit.

The alert reader will also see the connection to the previously discussed integrity and judgment.

- One of the most tiresome and overused words nowadays is communication – but it is still important! Huge numbers of books, articles, seminars, etc. have been produced on this subject, but it can still be a stumbling block for the county engineer who does not have the necessary skills. You may be competent, have integrity and judgment, be reliable, and have all the other human virtues, but if these cannot be effectively communicated they will not count for much. The reality of communication failure, however, is in the inability to listen effectively. A good investment for a county engineer is to periodically take a “refresher” on effective communication.
- If you can develop the above ‘critical dimensions’, you will probably inspire trust among those with whom you work. Webster’s defines “trust” as “Total confidence in the integrity, ability, and good character of another”. It is essential that you are trusted by your board or executive or public works director. If they do not trust you, no one will be a winner in the relationship – especially you.

RELATIONS WITH OTHER COUNTY OFFICIALS

An important point to remember in county government is that it is not structured in a traditional, hierarchical business-like manner. That is, all power and authority does not flow down from the top. County government is composed of an elected legislative authority (the Board or Council), several independently elected officials (sheriffs, auditors, etc.), plus judges, who have both independent and interconnected relationships. This results in a strange mix of checks and balances as well as built-in inefficiencies – all hallmarks of our republican form of government. Furthermore, counties are “agents of the state” with all the responsibilities and limitations inherent in that relationship.

There are several other county officials with whom you may do business, needing both their help and especially their cooperation. The separately elected officials have been discussed in a previous section. Depending upon the size and complexity of the county, there also may be several appointed officials. Those may include the heads of the county planning department and the planning commission, building code enforcement, health department, public transit authority, solid waste department, central services department, purchasing department, parks and recreation department, stormwater management department, information services, and perhaps even others.

The point is that there is a multitude of both elected and appointed officials with whom you must do business from time to time. It pays to understand what they do, the nature of the relationship between your duties and responsibilities and theirs, and how you can mutually help, or hinder, each other. Effective county government is a team effort.

RELATIONS WITH THE PUBLIC

In these modern and enlightened times, does there breathe the county engineer who does not know the value of good public relations? A sometimes unpleasant surprise to the new county engineer is the high visibility of the position, especially in the smaller counties. Everything you do, both public and private, is open to review and criticism from the public. You must conduct yourself and your department as if everything you do will end up on the front page of the daily newspaper (and sometimes it does!).

To be successful in your public relations, the same qualities that you project in your relationship with your Board are essential. Although it is impossible to keep all of the public happy (or at least non-antagonistic), how you conduct yourself as a department head is critical. You have a responsibility to run an open department, providing information to the public regarding current activities and, perhaps more importantly, future activities. Road issues and road management policies affect virtually all citizens.

Methods for informing the public and receiving comments from the public are vital to the effective operation of any department. The public always deserves a sympathetic ear, and every complaint should receive a timely response. Frequently, public complaints are first voiced to a county commissioner or councilperson. It is strongly encouraged that a clear process be set up for referral of such road-related complaints to your office for response (with a copy of the response going back through the original recipient).

It is recommended that the county engineer develop and institutionalize throughout the department policies and procedures to insure continuous, two-way communication with the public. In recognition of the importance of investigating and responding to complaints from the public, CRAB has instituted a Standard of Good Practice that requires all counties to have, at a minimum, a written policy for handling complaints. [WAC 136-10-050(3)]

RELATIONS WITH THE MEDIA

Effective and positive media (i.e., newspaper, radio, TV) relations are also important to a public works or road department. One thing you can be sure of – the media is interested in what you do, especially when it appears to be controversial. Virtually anything that has a public impact or is of public interest is potential media material. In most counties, the media is in regular attendance at the County Commissioners' meetings including your regular sessions.

You can expect that the issues and actions you bring before your Board will be re-played by the media, either accurately or not. The bottom line is you can wait for them to come to you or you can go to them. Our suggestion is the latter.

No matter how you personally look upon the media, they remain as powerful influences upon the success of your job. You have a common goal – informing the public – but frequently quite different ways of going about it. It is wise to maintain good relations with representatives of the media, but do not forget to keep them professional. Providing 'inside' information to the media on an 'off

the record' basis is dangerous at best, disastrous to you and your department at worst. It may be useful to have a regular weekly appointment with media representatives to provide a forum for two-way communications on department issues of interest to the public.

Be sure that all of your employees know the department's policy on providing information to the media. You should never have policies or practices that give the appearance of "stonewalling", but there is nothing wrong with instructing your staff about who is responsible for responding to media inquiries and how they can be reached on very short notice.

When you do have an interview with the media, remember that preparation is the key to a good interview. The following media interview tips are worth remembering⁶:

1. Write out three brief, positive points you want to make.
2. Concentrate on the question asked.
3. Always tell the truth.
4. Use transitional phrases to gain more control of the interview by bridging to your three points.
5. If interrupted, ask to finish your point.
6. Pause and think of your answer.
7. Answer in "quotable" length – keep it under 60 seconds and give your conclusion first.
8. Don't use "buzzwords" or "jargon".
9. Try to remain calm – don't let techniques or outside noises disturb you.
10. Use analogies and anecdotes.
11. On TV, address the newsperson – not the floor or ceiling.
12. Be authoritative. On TV, Use your hands.
13. Assert yourself.

Last, but not least, do not discuss or offer opinions on political issues (or politicians themselves) with anyone. What goes around frequently comes around.

2.F.3. As A Manager

The county engineer is a key official directing/managing one of the largest single departments/divisions of county government and, in many counties, one of the largest single employers in the county. The road department impacts the lives of most residents of the county on a daily basis and recurring poor performance of maintenance crews, poor customer service by the permit/development review personnel, or even traffic signage or construction projects can result in an avalanche of phone calls to the commissioners or the local news media. This is NOT GOOD. Your management skills and your ability to motivate, direct, and complete tasks through the efforts of your subordinates will be tested continually.

⁶ APWA, Public Works Administrators' Training Program.

The most important skills you can develop are the ability to work with your employees and the ability to lead them. You must delegate and work with your employees to multiply your abilities. As a team, you accomplish much more than the same number of individuals working independently. While supporting your staff, it is important to ensure that they are fairly and accurately implementing your policies.

UNIONS

Unions can be either strong partners or strong adversaries. It depends on you. Treat all employees fairly and equally and understand the union contract. The union is dedicated to providing a good work force and it is one of your challenges to keep them motivated, focused, and positive. In times of budget shortfalls and high expectations, that can be a real challenge. Try to establish a positive working relationship with the union representatives, officers, and the paid staff. Try to find 'win-win' solutions to employee problems and the union contract. (See Section 8.D.)

REGULATORY AGENCIES

It is important for the County Engineer to establish positive, professional relationships with his/her peers in the various regulatory agencies. In case of conflict, CRAB is available to ask questions at the headquarters level and to assist you in resolving issues. It is possible that a regional interpretation of a regulation is not consistent with other regions or with the intent of the headquarters office. The more you network with other county engineers and utilize CRAB, the easier your job becomes.

OTHER ASSIGNED RESPONSIBILITIES

As managers rotate through county government, responsibilities and organizational structure change. As we look around the state, our brethren who began as county engineers are currently responsible for all manner of tasks.

- **ER&R:** Equipment Rental & Revolving Fund. It is very common to be responsible for this function, especially when road vehicles are the majority of the inventory. Sheriff's department vehicles typically make up the second largest inventory and with their requirement for rapid repair of often abused vehicles, the potential for friction exists. ER&R responsibilities may be assigned to purchasing, administrative, or another department. The sole legal responsibility necessitating the County Engineer's involvement is in RCW 36.33A.040, which says that the county engineer is required to determine the rates for the fund and to submit these rates to the legislative body for annual review and approval. (See Section 8.A.)
- **Surface Water Management:** The very nature of roads concentrates water (be it floods or surface runoff) into ditches and culverts, and under bridges. Similarly, the road department has maintenance crews and equipment and responds to flooding as it affects roads and bridges. It is only natural that the road department be responsible for surface water management in rural counties. As counties urbanize, surface water

(stormwater) utilities with dedicated revenue sources often are formed. This provides a distinct funding source for work. The utility may remain in the road department, or it may become a separate division of a public works department or it may even be a separate department.

A stormwater utility provides a focus for water-related issues that may become lost within a road department. Roads more often are primarily concerned with water quantity (i.e., floods) as it affects the road system. A utility provides a more global approach with more focus on water quality and basin-wide or watershed-wide planning. The utility allows a concentration of engineers, planners, and technicians with a more water/environmental approach and provides a good balance to the road/construction engineers.

An ongoing responsibility of the county engineer is to submit a prioritized listing of grant requests from all jurisdictions within the county for assistance from the Flood Control Assistance Account Program (FCAAP). FCAAP is a program administered by the Department of Ecology and described in WAC 173-145.

- **Special Districts (Drainage Districts/Diking Districts):** These are independent districts with their own elected officials, budgets, and taxing authority, but the county engineer is their technical expert per Chapter 85 of the RCW. This is an interesting chapter of old law that on the surface appears to be contrary to much of the new legislation on wetlands. If your county is one that has active special districts, it is imperative that you become very familiar with the RCW and very aware of what the districts are doing. You may become very involved!
- **Solid Waste:** In the rural counties, the county engineer is THE ENGINEER. Anything remotely technical begins in the road department.

You will undoubtedly be involved in the collection and disposal of solid waste. Frequently, you will contract for the collection. In the past, most counties maintained their own landfill sites and county engineers frequently had the responsibility to operate them.

With increasing environmental awareness, the liability for pollution from landfills is so great, the cost to construct them to Department of Ecology (DOE) standards so prohibitive, and the permits to open new sites so difficult to obtain that most counties are opting to send solid waste to regional landfills. This involves some type of transfer station where the local collection system interfaces with a 'long haul' transportation system. As counties close up their landfills, they are then responsible for the maintenance and monitoring of the existing capped sites for thirty years.

As the counties urbanize, solid waste may be one of the triggers to form a public works department and to staff it with engineers and technicians who specialize in the complex and evolving regulations and standards governing solid waste management.

- **Ferries:** Four Washington counties own and operate ferries as waterborne extensions of their road systems. Because ferries have been designated in statute as part of the road system, they are eligible for most kinds of transportation funding. In addition, because they are extremely expensive to operate, the state provides an O&M subsidy, which is shared among the county systems. There also exists a Ferry Capital Improvement grant program that is administered by CRAB that may assist the counties replace vessels and terminals.
- **Building/Development:** Again, in the rural counties, the county engineer often has all of this responsibility. As counties urbanize, a building department may emerge as a separate department or may become part of a Public Works Department. As problems grow, building and planning may be combined with public works into a Public Services Department, or may become a separate Community Development Department. As discussed elsewhere, certain platting and road development responsibilities must remain with the county engineer, which can lead to interesting communication opportunities.

If you have the opportunity to manage a building department, then you must be aware of several things. First, learn the Uniform Building Code (UBC) and then the plumbing code, etc. Next, the Fire Code is essential reading, especially if you discover that you are not only the Chief Building Official but also the County Fire Marshal. At a minimum, you will become involved with a circle of new friends at all the neighborhood fire districts.

Finally, the permit counter and the issues surrounding plan approvals and building inspections will provide you many opportunities for intensive public scrutiny, be it in the newspaper or the council chamber as irate citizens storm the Courthouse. Just because you are trying to help them construct a better, safer home does not always satisfy them.

- **Planning:** Transportation planning resides in many different places in Washington counties. Whether or not it is under the direct purview of the county engineer, however, it is important for the road department to play an active role in the development and maintenance of the county's transportation plan. That is particularly true in counties planning under the Growth Management Act, which focuses to a large degree upon the relationships between transportation and land use. The ability of the transportation system to support increased development (the concurrency issue) is of great importance to both the private sector, which depends upon adequate infrastructure for growth, and to the county engineer who is responsible for the maintenance and preservation of the county's road system.

Failure to be an active participant in the transportation planning process is likely to result in the county engineer's relegation to the role of a technician

in the operation and management of his/her road system. A word to the wise . . .

- **Emergency Management:** The road department is a major participant in preparedness, mitigation, and recovery efforts and in more than one county, the Public Works Director is in charge of Emergency Management. More typically, the Sheriff's Department manages the program or a separate Emergency Services Department is established.

At a minimum, get organized! A primary function of the Road Department is emergency response to storms, snow, ice, and flooding as we attempt to keep the roads open. Open roads are essential as the county responds to any type of emergency.

This is an excellent area in which to prepare checklists and to involve the department, especially the maintenance crews, as you brainstorm problems and solutions. Simple items such as dry sand, sand bags, maps with the same coordinate base for use by all affected departments, radio frequencies, standby power, listing and location of tools and equipment which you can share with neighboring jurisdictions are just a few of the issues that should be discussed and coordinated before any emergency strikes. Ensure that both you and the County Commissioners agree on your authority and your purchasing/contracting authorities in case of an emergency. (See Section 8.C.)

- **Geographic Information Systems (GIS):** GIS is the next major technological advance in managing your programs. The system is very expensive to establish and often is within the Road Department because of funding, the technological expertise of the engineers, and the close connection to surveying. However, because of the close connection with the official Assessors Plat Map, the assessor often has responsibility for GIS. In large counties, GIS may be coordinated and managed by the General Services or Information Services Department. In any event, the relationship between the engineer and other participants in GIS development is very important. (See Section 5.E.)
- **Dog Catcher:** "Other duties as assigned" are as numerous as the stars in the sky.

3.A. OVERVIEW

A major responsibility of all County Engineers is acquiring adequate funding to accomplish necessary tasks and to use that funding in the most efficient manner. Counties are fortunate in that they have a dedicated source of funding from the state gas tax and from a portion of the local property tax. Unfortunately, the funding does not currently meet the needs. The state gas tax is distributed through CRAB based on a formula that takes into account not only need but also population and annual maintenance and replacement costs. (See Section 3.B.2.) Property tax is collected based upon the assessment rate set by the Board of County Commissioners or the County Council and the amount collected depends upon the assessed value of property in the unincorporated county. Counties with large areas in open space, agriculture, or federal/state/tribal land receive substantially less property tax revenue than more developed counties. (See Section 3.B.3.) Similarly, some counties receive substantial timber revenues. In all cases, however, the road systems to be managed vary greatly. Competitive grants from state and federal programs complete the fiscal opportunities for the counties.

Each county is unique in its fiscal situation. The success of the County Engineer is a result of how effectively and efficiently he/she is able to provide a level of service with the funding available.

3.B. REVENUE

3.B.1. Federal Funds

TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

TEA-21 builds on the initiatives established in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which was the last major authorizing legislation for surface transportation. The Act combines the continuation and improvement of ISTEA programs with new initiatives to meet the challenges of improving safety as traffic continues to increase at record levels, protecting and enhancing communities and the natural environment as we provide transportation, and advancing America's economic growth and competitiveness domestically and internationally through efficient and flexible transportation.

At this writing, Congress is considering reauthorization of the Surface Transportation Act. While there will almost certainly be some changes, the primary program elements are not expected to substantially change.

TEA-21 includes numerous funding programs, many of which were originally established as part of ISTEA. Of these programs, the following are of most importance to counties:

- **Bridge Replacement and Rehabilitation Program:** The Bridge Replacement and Rehabilitation Program provide funds to states for the replacement or rehabilitation of deficient bridges (bridges which are unsafe because of structural deficiencies, physical deterioration, or functional obsolescence) both on and off the federal-aid highway system. The state maintains an inventory of all bridges, classified according to serviceability,

safety, and importance for public use. Based on that classification, each bridge is assigned a priority and a cost to either replace or rehabilitate the structure. The state, in cooperation with cities and counties, selects bridges for replacement or rehabilitation, according to the funds available. Under federal law, apportioned funds must be split, with not less than 15% and not more than 35% being expended on public off-system bridges.

Under ISTEA, bridge seismic retrofitting, bridge structure painting, and the application of calcium magnesium acetate became eligible uses of federal bridge funds. Through TEA-21, eligible uses expanded to include application of certain anti-icing and de-icing compositions and installation of scour countermeasures.

Bridge Program funds are shared 60% by WSDOT and 40% by local agencies (cities and counties). The normal match requirement for bridge funds is 20%. However, WSDOT recently changed the local match requirement for bridges that cost less than \$10 million to 0%. Using "toll credits", those bridges are funded at 100% with the federal bridge funds. Bridges that cost more than \$10 million continue to require a 20% local match for the total of those projects; that is federal funding is at 80%.

- **Emergency Relief Program:** The Emergency Relief Program authorizes the FHWA to render assistance for repair and reconstruction of federal-aid highways that have been damaged due to a natural disaster such as flooding or as a result of a catastrophic failure from any cause. The federal share payable on account of any repair or reconstruction is 100% of the costs incurred to minimize damage, protect facilities, or restore essential traffic services during the first 180 days after the occurrence. Thereafter, the federal share is equal to the federal share payable on a project on the system (generally, 90.66% on the Interstate System and 86.5% on all other roads).

In order to receive Federal Emergency Relief funds, the Governor must declare an emergency; the U.S. Secretary of Transportation must concur; and the FHWA must receive an application from the Washington State Department of Transportation. If the President has declared the emergency to be a major disaster for purposes of federal law, no concurrence of the USDOT is required.

- **Federal Lands Program:** The Federal Lands Highways Program provides funding for improvements to and preservation of highways on federal lands. The Program has four categories: Indian Reservation Roads; Parkways and Park Roads; Public Lands Highways (which includes Forest Highways); and Refuge Roads. Under TEA-21, the refuge roads category was added to provide funds for access to or within national wildlife refuges. All categories of funds, except Refuge Roads, can be used for transit facilities. Presently, twenty-four counties are eligible to compete for Federal Land Program funds.
- **Surface Transportation Program:** The Surface Transportation Program (STP) was originally established under ISTEA, where it was the largest and

most important funding program. The STP is the most flexible of all federal-aid programs, allowing use for the widest array of transportation projects. Examples of such projects are construction, reconstruction, resurfacing, restoration, rehabilitation, and operational improvements for highways (including Interstate highways) and bridges (including Interstate bridges), including any project necessary to accommodate other transportation modes; mitigation of damage to wildlife, habitat, and ecosystems caused by any transportation project; capital cost of transit projects eligible for assistance under the Federal Transit Act; publicly owned intracity and intercity bus terminals and facilities; highway and transit safety improvements and hazard elimination; surface transportation planning; highway and transit research and planning and technology transfer activities; capital and operating costs for traffic monitoring, management, and control; fringe and corridor parking facilities; carpool and vanpool projects; bicycle and pedestrian facilities; transportation control measures; transportation enhancement activities; development of certain required management systems; and a variety of wetlands mitigation efforts.

Under TEA-21, STP funds are distributed as follows:

- 10% of available funds shall only be available for highway-railway crossing programs and hazard elimination programs.
- 10% of available funds shall only be available for transportation enhancement activities. The term "transportation enhancement activities" means the provision of facilities for pedestrians and bicycles; acquisition of scenic easements and scenic or historic sites; scenic or historic highway programs; landscaping and other scenic beautification; historic preservation, rehabilitation, and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals); preservation of abandoned railway corridors (including conversion and use for pedestrian or bicycle trails); control and removal of outdoor advertising; archaeological planning and research; and mitigation of water pollution due to highway runoff.

The enhancement program is directed specifically at non-motorized transportation projects that have previously received no funding. Projects may be suggested by any segment of the community but must be sponsored by an agency with Certification Acceptance (CA) authority. Regionally, projects are prioritized by the RTPOs and forwarded to the Department of Transportation for selection by a statewide multi-jurisdictional committee. The sponsors of successful projects are responsible for design, construction, and maintenance in perpetuity.

- 50% of available funds must be obligated in urbanized areas of the state with an urbanized area population of over 200,000, and other areas of the state, in proportion to their relative share of the state's population. Of the amounts required to be obligated in areas under 200,000 population, the state must obligate in areas under 5,000 population not

less than 110% of the amount of funds apportioned to the state for the federal-aid secondary system for fiscal year 1991. TEA-21 permits up to 15% of amounts reserved for rural areas to be spent on rural minor collectors. In Washington, the Seattle-Everett, Tacoma, Spokane, and Vancouver areas qualify as areas over 200,000 population.

Outside the boundaries of the federally designated MPOs, counties are the lead agencies for administration of the funds. That responsibility includes convening multi-jurisdictional and modal project selection committees, conducting public participation processes, and distributing funds. The key elements to conducting a successful STP program are to create a process that fits the region and to involve all transportation interests in the project selection.

- 30% of the available funds may be obligated in any area of the state.

The statewide competitive fund was created specifically to provide transit with a special venue in which to compete for ISTEA – now TEA-21 – revenues. Once again, projects submitted by all jurisdictions and modes are eligible to compete against each other for funding. The Transportation Improvement Board (TIB), which is composed of members from counties, cities, WSDOT, transit, and other transportation interests, performs the project selection according to agreed-upon criteria. The Highways & Local Programs Division of WSDOT administers the funds.

While there are some exceptions, the match requirement for STP funds is generally 20%.

FEDERAL FOREST FUNDS

For those counties with national forest land, there is another federal funding source called the Federal Forest Yield funds (USC Title 16, Section 500). The amount of funds distributed is based on the value of the logged timber in each of the several national forests within the State of Washington. Twenty seven of the thirty-nine counties receive these funds, with Douglas County receiving the least (\$1.05 in 2000) and Skamania County the most (slightly over \$3 million in 2000).

Before 2001, the federal government remitted 25 percent of the receipts from timber harvested from national forests with the state to the counties where the forests were located. These amounts were divided equally to be used for public schools, public roads, and other public purposes. To deal with the decline in revenues from this source resulting from the curtailment of federal timber sales, Congress passed the "Secure Rural Schools and Community Self-Determination Act of 2000" (PL 106-393). This law changed the determination of the federal forest distribution amounts. Counties were given the option of a "full payment amount" based on a share of the state's highest three years from 1986 to 1999, or an amount based on actual receipts. All affected counties opted for the "full payment amount". The counties receive payments of Title I and Title III monies. The Title I amount is then divided to be used 50 percent for schools and 50

percent for schools or roads. The Title III money is to be used for county projects.

The entire amount of Titles I and III funds is distributed after the end of the federal fiscal year. This is in effect through federal fiscal year 2006. Interest earnings applied to the receipts while residing in the state treasury are distributed to participating counties based on the corresponding distribution of federal receipts.

OTHER FEDERAL FUNDS

A few other miscellaneous Federal funds that may be available for road or other public works purposes include:

- **Military Forest Yield:** Counties' share of the receipts from military installations remitted by the state treasurer under USC Title 10, Section 2665. These funds are to be spent on public roads and public schools.
- **Federal Flood Control Leases:** Counties' share of the receipts from leases of federal lands acquired for flood control, navigation, and related purposes under USC Title 33, Section 701c-3. These funds are remitted by the state treasurer and may be used for any expense of county government. Alternatively, these receipts may be passed on to flood control districts or diking and drainage districts. See also RCW 36.34.220.
- **Federal Grazing Act (Taylor Act):** Counties' share of the receipts from grazing leases on federal lands outside grazing districts, remitted by the state treasurer under USC Title 43, Section 315i. See also RCW 79.28.040.
- **U.S. Fish and Wildlife Refuge Tax (PILT):** Where a county has incurred a loss or reduction of real property tax revenue due to the existence of wildlife refuge lands and waters administered by the Department of the Interior, the loss is offset by this 'payment in lieu of tax', or PILT, process (Refuge Revenue Sharing Act, as amended 16 USC, Section 715a).

3.B.2. State Funds

STATE MOTOR VEHICLE FUEL TAX (MVFT)

The State Motor Vehicle Fuel Tax (MVFT – commonly called the gas tax) is one of the primary sources of road fund revenue for counties. In addition to the regular distribution to each county, it also provides the funding for the Rural Arterial Program, the County Arterial Preservation Program, and Transportation Improvement Board (TIB) programs. In 2001, gas tax revenue from these sources amounted to 22.8 percent of all county road fund revenues.

- **Definition:** The state gas tax is an excise tax on the sale of motor vehicle fuel. The rates, processes, exemptions, etc. are set by statute [RCW 82.36]. Collection and distribution are by the Department of Licensing and the State Treasurer.

- **Dedications to Motor Vehicle Funds:** All MVFT taxes (less exemptions and refunds), plus other minor revenue sources such as special fuel taxes [RCW 82.38] and use taxes [RCW 82.12]) are placed in the Motor Vehicle Fund [RCW 46.68.070]. This fund "...shall be for the use of the state, and through state agencies, for the use of counties, cities, and towns for proper road, street, and highway purposes, including the purposes of RCW 47.30.030." (Non-motorized traffic)
- **Distributions from the Motor Vehicle Fund:** There is a hierarchy of distributions of the MVFT and other taxes placed in the Motor Vehicle Fund [RCW 46.68.090]. In descending order, they are:
 1. Payments of any refunds as provided by law.
 2. Administrative expenses of the state treasurer, auditor, and department of licensing (related to MVFT and special fuel tax collection and distribution).
 3. WSDOT.
 4. Special Category C Account, administered by WSDOT for WSDOT.
 5. Puget Sound Ferry Operations Account.
 6. Puget Sound Capital Construction Account.
 7. Urban Arterial Trust Account, administered by TIB for cities and counties.
 8. Transportation Improvement Account, administered by TIB for cities, counties, and WSDOT.
 9. Cities and towns as per RCW 46.68.110.
 10. Counties as per RCW 46.68.120.
 11. County Arterial Preservation Account, administered by CRAB for counties.
 12. Rural Arterial Trust Account, administered by CRAB for counties.
- **County-Specific Distributions:** The actual percentages of items 3 through 12 above are specified in RCW 46.68.090. These are summarized in Figure 3-1.

Through the regular distribution, the Rural Arterial Program (RAP), and the County Arterial Preservation Program (CAPP), counties receive 23.72% of the state 23 cent gas tax, or about 5.46 cents. In addition, counties also participate in the 3.04 cents (13.23% of 23¢) of the TIB-administered programs. RAP, CAPP, and TIB funding issues are discussed in other sections.

- **Regular Distribution – Deductions:** With amendments to RCW 46.68.090 made during the 1999 legislative session, gas tax distribution was greatly simplified. The amount of the 'regular distribution' (Item 10 in the preceding listing) is 19.2287% of 23 cents less any funds (not to exceed \$1 million per biennium) necessary to subsidize county ferry deficits in Pierce, Skagit, and Whatcom Counties [RCW 47.56.725(1)-(3)] and less any funds appropriated to CRAB for county capital ferry improvements in the three Puget Sound counties and Wahkiakum County [RCW 47.56.725(4)]. Of this regular distribution amount, 1½% is deducted for 'state supervision'. This

amount is shared between WSDOT Highways & Local Programs and CRAB to cover their relative administrative costs of providing services to counties. Thirty-three hundredths of a percent of the regular distribution amount is deducted for the purposes of funding the counties' share of any multi-jurisdictional studies such as the Road Jurisdiction Study. All sums required to be repaid to counties composed entirely of islands are also deducted.

Presently, approximately 64% of the 'state supervision' deduction goes to WSDOT Local Programs and 36% to CRAB. For FY2005, the total state supervision deduction is estimated to be \$2,149,000, and the 0.33% 'studies' amount is estimated to be \$473,000 (Forecast RF 0411). The 'island county refund' moneys are of chief interest to **Island** and **San Juan** counties as they are the only counties eligible to receive these funds.) Specifics of the calculations are contained in RCW 46.68.080, which is also known as the 'Capron Act'.

After all the deductions and refunds are taken into account, the net funds remaining are distributed among all 39 counties on a formula basis, commonly called the "gas tax formula" [RCW 46.68.120(4) and 46.68.122 and .124]. (See Figure 3-2.)

- **County Gas Tax Formula – Basic Factors:** Currently, nearly \$148 million per year is distributed among all the counties by a rather complicated formula. CRAB is responsible for the biennial calculations (and annual updating), which are furnished to the State Treasurer who actually makes the distributions monthly.

Ten percent of the funds are distributed equally to all counties. Thirty percent is based on each county's pro rata share of 'equivalent population', which is a weighted combination of incorporated and unincorporated populations. Another 30% is based on each county's pro rata share of the estimated annual cost to replace and maintain its road, bridge, and ferry systems. The final 30% is based on each county's pro rata share of its money 'needs'. These needs are expressed as the previously mentioned costs less a discrete list of 'resources'. The resources included are the actual county road levy revenue, the Federal Forest Funds, the state timber excise tax, and the island county refunds.

The complete text of the formula is contained in RCW 46.68.122 and .124.

- **County Gas Tax Formula – Cost Factors and Use of the Roadlog:** The county roadlog, which must be updated each year by all the counties [WAC 136-60], serves as one of the primary data sources for computation of the 30% 'cost factor' and the 30% 'need factor' in the gas tax formula. The 'cost factors' are the aggregation of various unit costs related to the reconstruction and maintenance of roads and bridges; these costs are applied to the mileage in each of the counties' roadlogs to generate a total cost to reconstruct and maintain their roads and bridges (for counties owning and

operating ferries, those costs are also included in the totals). To quote the statute:

"The county road administration board shall be responsible for establishing a uniform system of roadway categories for both maintenance and construction and also for establishing a single state-wide cost per mile rate for each roadway category. The total annual cost for each county will be based on the established state-wide cost per mile and associated mileage for each category. The mileage to be used for these computations shall be as shown in the county road log as maintained by the county road administration board..." [RCW 46.68.124(2)]

With the concurrence of the WSACE Finance and Resources Committee in 1990, CRAB is currently using a derivation of the Road Jurisdiction Study results for the unit costs and the 1983 Cost Factor Study for the roadway category definitions.

The County Gas Tax formula is illustrated in Figure 3-3.

- **County Gas Tax Formula – Limitations on Changes:** To insure that major changes in the basis of calculations neither benefit nor punish any one county unduly, the statute contains a provision for limiting the annual amount of change in any one county's allocation factor (i.e., its proportional percentage of the total) to a maximum of plus or minus 5% [RCW 46.68.124(5)]. This is not the same as limiting the amount of change in funds received to plus or minus 5%. Counties with larger allocation factors could experience a much larger change both in factor and funds than one with a smaller factor (ex. – Snohomish County's 2001 factor is 6.3558. Five percent is 0.3178, which – on a \$130 million total – would be slightly more than \$413,000. Conversely, Pacific County's factor is 0.9381. Five percent is 0.0469, which, on the same \$130 million total would only equal approximately \$61,000. (You can draw your own conclusions as to the fairness or appropriateness of this, but that's how it works.)
- **Distribution and Notification:** By statute, CRAB recalculates each county's share of the gas tax biennially using new population data and new cost and need figures. In the odd-numbered years between each biennial update, CRAB adjusts each county's percentage under the provisions of the preceding paragraph, "Limitations on Changes", only if the preceding year's recalculation resulted in one or more counties at the +/- 5% threshold.

The allocation factor for each county as computed by CRAB each year is forwarded to the State Treasurer by September 1 for the year beginning the following January 1. Based upon these factors, the State Treasurer, on a monthly basis, sends to each County Treasurer that county's share of the monthly gas tax collections.

At the same time the State Treasurer is notified of the allocation factors, and to provide each county a 'heads-up' as to what they should be considering in

the budget preparation, CRAB also sends each county a county-by-county listing of the allocation factors plus an estimate of the funds to be received based on the most recent state revenue forecast.

- **Diversion:** RCW 36.78.090 states, in part,

"(1) Before May 1st of each year the [CRAB] board shall transmit to the state treasurer certificates of good practice on behalf of the counties which during the preceding calendar year: (a) Have submitted to the state department of transportation or to the board all reports required by law or regulation of the board; and (b) Have reasonably complied with provisions of law relating to county road administration and with the standards of good practice as formulated and adopted by the board." (Emphasis added)

Chapter 36.82 RCW, Entitled Roads and Bridges – Funds – Budgets, enumerates the revenues that must be deposited into the county's road fund and lists the purposes for which these funds may be used.

Counties cannot be found to be in reasonable compliance with "provisions of law relating to county road administration" if they are in violation of any of the provisions of Chapter 36.82 RCW. This means that counties that divert road funds for unauthorized uses are at risk of having their gas tax revenues withheld.

RURAL ARTERIAL PROGRAM (RAP)

In 1983, the legislature, with the support of CRAB and the counties, created the first county-specific grant program, the Rural Arterial Program. Originally limited to improvement projects on county rural major and minor collectors plus "replacement bridges funded by the federal bridge replacement program on access roads in rural areas", eligibility for the program was expanded by the legislature in 1997 to include all rural arterials and collectors. For the purposes of this program, the state has been divided into five regions. To date, within these five regions, this competitive program has authorized almost 800 projects worth over \$265 million. This program serves as virtually the only source of grant funds for the 6,300 miles of the rural minor collector system, which is slightly less than half of the entire 13,100 eligible system miles.

- **Basic Authority:** The RAP statutes are contained in RCW 36.79. They provide for the creation of a rural arterial trust account (RATA) which is funded by 2.5363% of 23 cents the state's cent gas tax. Funds are distributed to the five regions on a land area-mileage basis; unspent funds remain with each region. Trust account interest, after a period of diversion to the state general fund, is now credited to the trust account for distribution to the regions. The legislation further provides for CRAB administration of the program; a requirement for projects to be included in county six-year programs; establishment of matching funds; and eligibility exclusion for counties that divert road funds, except in special cases.

- **CRAB Authority:** CRAB, with the assistance of the county engineers in each of the five regions, has developed and adopted appropriate administrative rules, contained in WAC 136-100 through 210, including supplements for different priority ratings for each region and standard forms to be used.
- **Program Cycle:** The RAP program activities are based on a state biennium cycle, as illustrated in Figure 3-4. Currently some 90% of an ensuing biennium's estimated RATA funds are allocated to projects within regions at the spring CRABoard meeting in each odd-numbered year. The remaining 10% (adjusted for withdrawals, underruns, and interest) is allocated at the spring meeting in even-numbered years. The CRABoard meets quarterly and adjustments to projects are also made then.
- **Diversion:** A major legislative restriction bars any county that is diverting road funds from participating in the RAP program. There are some exceptions, however, which are specified in RCW 36.79.140 (See Section 3.C.7.) Counties which are, or are considering, diverting road levy funds to other governmental purposes should be very familiar with this section as well as with WAC 136-150.

COUNTY ARTERIAL PRESERVATION PROGRAM (CAPP)

In 1990, the legislature established the County Arterial Preservation Program (CAPP) to assist in funding preservation of county arterial pavements. CAPP provides some \$12+ million per year to counties for a program similar to WSDOT's pavement preservation program.

- **Basic Authority:** The CAPP legislation is contained in RCW 46.68.090(k). It provides for the creation of a trust account (CAPA) funded by 1.9565% of 23 cents of the 28 cent MVFT. Distribution is in proportion to the paved arterial lane miles under each county's jurisdiction. Funds are to be used for "...improvements to sustain the structural, safety, and operational integrity of county arterials." CRAB has the responsibility to administer the program and "...to assure a pavement management system [PMS] is used."
- **CRAB Authority:** As required by statute, CRAB has developed and adopted appropriate administrative rules, which are contained in WAC 136-300. These rules deal with certification of mileages for allocation percentage calculations; basic eligibility; PMS requirements; annual CAPP programs and accomplishment reports; definition of eligible work; and accounting/audit requirements.
- **PMS Requirement:** Of particular note, all counties must be in conformance with the Standard of Good Practice requiring use of a pavement management system (WAC 136-70) to retain eligibility for CAPP funds. CRAB has developed and made available to all counties a system-level PMS computer software package that runs in CRAB's CRIS environment, called the County Pavement Management Planning System (CPMPS). Use of the CRAB package

is not a requirement; alternate systems may be used if comparable results are achieved. A PMS module will also be available in Mobility.

- **CRAB Assistance – PMS:** CRAB can and does provide technical and administrative assistance to counties for implementation of PMS. This is not restricted to CRAB's own software package but is also available for alternative systems. Training classes specific to the CPMS program are also available at the CRAB office.

TRANSPORTATION IMPROVEMENT BOARD (TIB)

The Transportation Improvement Board (TIB) is a state agency governed by a twenty-one-member board with representation from cities, counties, WSDOT, transit, ports, the Governor's office, non-motorized transportation, special needs transportation, and the private sector. CRAB's Executive Director is one of the county members. WSDOT's Assistant Secretary for Highways and Local Programs is also a board member.

The primary purpose of the TIB is to administer state funding for local government transportation projects. Projects are funded by utilizing TIB revenues in combination with local matching funds and private sector contributions.

The TIB administers the following grant programs:

- **Arterial Improvement Program (AIP)** – funding for city and urban county arterial road and street projects to reduce congestion and improve safety, geometrics, and structural concerns.
- **City Hardship Assistance Program (CHAP)** – funding to offset extraordinary costs associated with the transfer of state highways to cities with a population under 20,000.
- **Pedestrian Safety and Mobility Program (PSMP)** – funding for pedestrian projects that provide access and address system continuity and connectivity of pedestrian facilities.
- **Small City Program (SCP)** – funding for improvement of pavement condition, roadway geometrics, and safety in cities with a population less than 5,000.
- **Transportation Partnership Program (TPP)** – funding for transportation projects for urban counties, cities with a population over 5,000, and Transportation District Benefits. Projects must be attributable to congestion caused by economic development or growth; must be consistent with state, regional and local comprehensive plans; and must be partially funded by local contributions.

The TIB invests state gas tax funds in local communities through these grant programs serving cities, urban counties, and transportation benefit districts in Washington State. The TIB identifies and funds the highest-ranking transportation projects based on criteria established by the Board for each program.

An additional responsibility of the TIB, assigned by the legislature in 1991 under RCW 47.26.167, is the Route Jurisdiction Transfer (RJT) program. The TIB receives petitions from cities, counties, or the state requesting any additions to or deletions from the state highway system. Utilizing criteria established in RCW 47.17.001, the Transportation Improvement Board provides recommendations to the Legislative Transportation Committee (LTC). The legislature makes the final decision on adding or deleting routes from the state highway system. The Route Jurisdiction Transfer process is on an annual cycle. The deadline for submitting transfer requests is February 1.

The TIB provides a variety of guidelines, grant application information, and other assistance for their programs, much of which is available on their website, www.tib.wa.gov. The authorizing legislation for the TIB is contained in RCW 47.26.121. The administrative rules are found in WAC 479.

PUBLIC WORKS BOARD (PWB)

The Public Works Board administers the Public Works Trust Fund (PWTF), which is a low-interest revolving loan fund designed to help local governments finance critical public works projects. The Public Works Board is governed by a thirteen member board appointed by the Governor. Board members include representatives of cities, counties, utility districts, and the general public. Staff support is provided through the State Office of Community Development. The enabling legislation is contained in RCW 43.155.

The PWTF is capitalized with dedicated revenues from utility and sales taxes on local water, sewer, and garbage collection and a portion of the real estate excise tax. These taxes are collected and deposited into the Public Works Assistance Account which is managed by the State Treasurer. Annual collections are approximately \$60 million.

Four loan programs come under the umbrella of the PWTF:

- **Construction Loan Program** – Created with the establishment of the PWB in 1985, this program funds local government projects for the repair, replacement, rehabilitation, reconstruction, or improvement of streets and roads, bridges, water systems, storm and sanitary sewage facilities, and solid waste facilities, including recycling facilities.
- **Emergency Loan Program** – In 1988, the legislature authorized this program to fund public works emergencies, helping to provide immediate restoration of critical public works services and facilities.
- **Planning Loan Program** – Established in 1989, the goal of this program is to provide financial assistance for the preparation of long-term Capital Facilities Plans (CFP) or Comprehensive System Plans (which include a CFP).
- **Pre-Construction Loan Program** – Begun in 1995, this program is intended to help local governments accelerate the construction of eligible public works improvements and to provide more flexible financing options.

In addition, the Public Works Board manages, jointly with the Department of Health, the Drinking Water State Revolving Fund, which provides loans to improve drinking water systems and protect public health.

Local governments that are eligible for PWTF loans include counties, cities, towns, and special purpose districts. Although private utilities, private enterprises, school districts, port districts, and tribal governments are not eligible for PWTF funding, the PWB encourages partnerships with eligible local governments. Threshold eligibility requirements for PWTF loans are: (1) Counties and cities must have adopted a local one-quarter of one percent Real Estate Excise Tax (REET); (2) Counties and cities planning under the GMA must be in conformance with the adoption timelines for Comprehensive Plan and Development Regulations; and (3) Counties, cities, and special purpose districts not planning under the GMA must have adopted a Capital Facilities Plan that meets PWB standards for each eligible system they own (this requirement is slightly different for Planning Loans).

The PWB provides comprehensive guidelines, application information, and technical assistance for all programs. Much of the information can be found on the Public Works Board website, www.pwb.wa.gov. Enabling legislation for the PWB is contained in RCW 43.155. Its administrative rules are in WAC 399.

FREIGHT MOBILITY STRATEGIC INVESTMENT BOARD (FMSIB)

In 1996, the Legislative Transportation Committee (LTC) designated the Freight Mobility Advisory Committee (FMAC) to analyze the state's freight mobility needs, identify high-priority freight transportation projects, and recommend policy to the legislature. The FMAC recommended that the state take the lead in implementing a freight mobility transportation program that would form funding partnerships among all the interested parties for improvements statewide along strategic freight corridors.

In 1997, the Washington State Department of Transportation (WSDOT) convened the Freight Mobility Project Prioritization Committee (FMPPC) to recommend specific criteria for use in ranking freight mobility projects and established a statewide freight mobility project list.

In 1998, the legislature created Chapter 47.06A RCW – Freight Mobility, which established a state freight mobility policy and also the Freight Mobility Strategic Investment Board (FMSIB) for the purpose of reviewing, prioritizing, and recommending freight mobility transportation projects that are of strategic importance to the State of Washington. The board is also responsible for designating strategic freight corridors within the state.

FMSIB is governed by a twelve-member board that includes representatives from cities, counties, ports, railroads, steamship operators, the trucking industry, the Governor's office, the Secretary of the Department of Transportation, and a public member.

The administrative rules governing FMSIB are in WAC 226. Information about the board and its funding program can be found on its website, www.fmsib.wa.gov.

STATE FOREST FUNDS

Another important revenue source for counties is the state excise tax on harvesters of timber, also known as the 'state timber excise tax', codified as RCW 84.33. The tax is assessed as a percentage rate of the stumpage value on timber harvested from public or private land; however, the county tax may be imposed only on timber harvested on private land.

The State Department of Revenue collects the revenue and the State Treasurer distributes it to the counties quarterly in February, May, August, and November, based on a complex formula related to local property tax levies. The state's distribution formula outlines three priorities for revenue distribution to the taxing districts. There are minimum distribution levels that must be met with each. Priority 1 is taxing districts with voted bond or capital project excess levies [RCW 84.52.056 and 84.52.053]. Priority 2 is local school maintenance and operating levies. Priority 3 is all other levies, including the county general fund and road fund levies, and the levies of junior taxing districts. The specifics are contained in RCW 84.33.081. There are also some exemptions and property tax offsets in the statute. This can be quite complicated and you should discuss this as it affects the road fund with your county treasurer.

3.B.3. Local Funds

ROAD LEVY (PROPERTY TAX)

- **Authority:** Over one-third of the revenues dedicated to county roads are generated from local property taxes. Property taxes are levied for many state and local purposes and are arranged in a complex hierarchy. The basic limits of the senior county levies are \$1.80 per \$1,000 assessed valuation for general government (current expense) and \$2.25 per \$1,000 assessed valuation for roads. The sum of the two senior county levies cannot exceed \$4.05 per \$1,000 assessed valuation. The authority to levy property tax is codified in RCW 84.52.043; the road fund levy is specifically expanded upon in RCW 36.82.040.
- **Basic Principles:** The fact that a multitude of state, local, and special district functions are funded by local property taxes, coupled with constitutional and statutory limitations on the total tax burden that can be imposed upon the citizens, makes the global issue of property taxes extremely difficult to understand. From the point of view of the road department, however, grasping a few basic relationships is crucial.

Two fundamental constraints define the bounds of property taxes in general. First, the sum of all property taxes cannot exceed one percent of a property's assessed valuation without the express consent of a supermajority of the voters. Second, the annual property tax cannot exceed 106 percent of the previous year's total plus the value of new additions to the tax rolls. The

combined millage of all of the eligible taxing districts must coexist within those parameters, and often the relationships are strained.

Because property taxes comprise so substantial a portion of the county's road fund revenues (and generally are distributed in two lump sums, April and November), it is important for county engineers and public works directors to track them closely, especially the projected November amount. Become well acquainted with both the county assessor and the county treasurer; their offices will provide revenue projections for budgeting as well as important data about the timing and extent of tax collections. Without a firm handle on that information, both initial budget development and monthly/end-of-year expenditure forecasting will be difficult at best.

ROAD IMPROVEMENT DISTRICTS (RIDs)

The RID is a useful road improvement financing method, especially in well defined, high-valuation areas in which the properties benefited can be clearly identified.

Originally codified in 1951 and amended in 1984, the enabling statute, RCW 36.88, provides a process for setting up a special assessment based on current property valuation. An RID is formed for the purpose of a specific road or related improvement project. The various purposes that can be accomplished by an RID are listed in RCW 36.88.010 and .015. RIDs may be initiated by the Board of County Commissioners (subject to a vote of the majority of those benefited) or by petition of a majority of benefited property owners. The overall process is very procedure-oriented and counties contemplating this local funding method should read the statute carefully. Many counties have successfully used the RID process for a variety of road and road-related purposes.

First the scope of the project is determined, then a district boundary of benefited properties is drawn. The Board then establishes the RID; bonds are sold and the improvement is constructed under the authority of the county engineer. The parcels within the district are levied their share of the cost and the costs are paid off over time with the annual property taxes.

The advantages of a RID are:

- Each benefited parcel pays its fair share of the cost and the cost is spread over the entire district.
- The district may sell bonds, which are redeemed by the annual payments from the parcel owners.
- It allows the project to be built when it is needed and the bonds to be paid off over time.
- It can be initiated by the local residents of an area or by the Board.

The disadvantages of a RID are:

- There is a significant amount of work required by the county engineer in defining the benefited area, verifying the majority issue when a petition is filed, scoping the cost of the improvement, etc.

- Whether by the Board or by petition, the establishment of the RID must be approved by a majority of the parcels involved.
- There are two opportunities for protest: at the RID establishment hearing and at the adoption of the tax rolls.
- In all cases, the cost assessed against each parcel cannot exceed the benefit that it receives.

TRANSPORTATION BENEFIT DISTRICTS (TBDs)

Similar in basic intent to the RID is the Transportation Benefit District or TBD. The TBD was authorized in 1987 and is codified as RCW 36.73.

The TBD is an independent benefit district (and taxing authority) involving both public and private participation as well as allowing for the inclusion of both the WSDOT and cities. Possibly owing to the size and complexities in forming the TBD, defining the district, determining both the specific projects and the benefits, and receiving general approval from all the likely participants, the only TBD of which we are aware is for the Point Roberts Peninsula in Whatcom County.

If all the hurdles can be overcome, a TBD has the potential to be a very powerful funding source.

LOCAL OPTION TRANSPORTATION TAXES

In 1990, the legislature authorized several transportation taxes that can be implemented at the option of local government. Codified in RCW 82.80, the taxes available to counties are the vehicle license fee, the commercial parking tax, and a local motor vehicle fuel tax. There is the stipulation that the revenues generated must be used for general transportation purposes that are the result of a formalized planning, coordination, and programming process. They cannot be used to supplant existing transportation revenues. Revenues are collected by the state treasurer and are shared with incorporated cities within the county according to population, with the unincorporated population multiplied by a factor of 1.5 for the calculation.

The three local option transportation taxes available to counties are:

- **Vehicle License Fee (VLF):** [RCW 82.80.020] This is the simplest tax to implement, requiring no prior voter approval although it is subject to referendum. The maximum fee is \$15 per year per vehicle with exemptions authorized for elderly, low income, and disabled people. Only Douglas, King, Pierce, and Snohomish Counties have enacted the local option VLF. Those four counties have the full \$15 per vehicle license fee in place.
- **Local Motor Vehicle Fuel Tax:** [RCW 82.80.010] This tax, which can total ten percent of the statewide rate (currently at 28 cents per gallon), requires prior voter approval. While this tax could generate significant revenues in some counties, it is the most politically volatile. Only two counties, Snohomish and Spokane, have attempted to adopt the local option gas tax but neither was successful.

- **Commercial Parking Tax:** [RCW 82.80.030] This tax is levied on parking slots for which a fee is paid. It requires no voter approval and, if enacted by a county, applies only to unincorporated areas. Unlike the prior two local options, all revenues generated in unincorporated areas are retained by the county. No county has enacted the Commercial Parking Tax.

BONDING

There are four specific types of bonds that counties may sell to finance road improvements. They are general road bonds, service district bonds, transportation benefit district bonds, and road improvement district bonds. Each of the categories serves a different segment of the population and, in each case, the bonding requires direct or indirect voter approval.

- **General Road Bonds:** RCW 36.76 sets forth a bonding process for counties to use in constructing new roads or improving existing roads. Improvements must be specified, and up to forty percent of the revenue may be used on roads within city limits. Indebtedness is limited to a total of two and one-half percent of a county's assessed valuation with voter approval. A majority vote of the legislative authority is required to place the issue before the voters.
- **Service District Bonds:** RCW 36.83 sets forth a process to create road and bridge service districts for funding capital and maintenance expenditures for any bridge or road improvement. The service districts are created by ordinance of the county legislative authority and constitute a quasi-municipal corporation with taxing authority, however, they may be terminated by a verified declaration signed by the owners of sixty percent of the assessed valuation of a district. The district may issue bonds without voter approval in an amount not to exceed three-eighths of one percent of the district's assessed valuation. In addition, the district can, with voter approval, issue capital improvement bonds in an amount not to exceed one and one-quarter percent of the valuation. In both cases, the bonding maximums are cumulative, including total district indebtedness. The bonds are paid off by a special ad valorem tax in excess of the one percent limitation, and if any of the projects involve ongoing user fees, those fees may be applied to the retirement of the bonds. To the best of our knowledge, no county has used or is using this process.
- **Road Improvement District Bonds:** See discussion under RIDs.
- **Transportation Benefit District Bonds:** See discussion under TBDs.

LATECOMER AGREEMENTS⁷

Latecomer agreements, also referred to as recovery contracts or reimbursement agreements, allow a property owner who has installed street or utility improvements to recover a portion of the costs of those improvements from other property owners who later develop property in the vicinity and use the

⁷ Municipal Research & Services Center, Seattle, WA.

improvements. Two different statutes, chapter 35.72 RCW for streets, and chapter 35.91 RCW for utilities, govern these. Chapter 35.72 RCW allows a municipality to be considered as a property owner that can be reimbursed under a street latecomer agreement, but chapter 35.91 RCW does not afford that same opportunity.

Latecomer agreement charges are not to be confused with local improvement district assessments. While the computation of charges to be recovered under a latecomer agreement can be very similar to that of a RID/LID assessment, the procedures are very different, and under a RID/LID, the money goes to the municipality rather than to the property owner. In addition, RID/LID assessments apply to all properties within the reimbursement area, whether or not the property is developed. Latecomer assessments, however, are triggered only if a property owner submits an application for a development that would have required similar improvements.

Any city or county can contract with property owners for construction or improvement of street or road projects which the owners elect to install as a result of ordinances that require the projects as a prerequisite to further property development. Street projects subject to reimbursement may include design, grading, paving, installation of curbs, gutters, storm drainage, sidewalks, street lighting, traffic controls, and other similar improvements as required by the construction standards of a city or county.

The reimbursement amount is to be a pro rata share of construction and contract administration costs of the project, determined by a method of cost apportionment based on the benefit to the property owner from the project. The reimbursement period cannot exceed fifteen years.

RCW 35.72.050 authorizes a city or county to join in the financing of street improvement projects and to be reimbursed in the same manner as the property owners of real estate who participate in the projects, if the city or county has specified the conditions of its participation in an ordinance. Or, a city or county may create an assessment reimbursement area on its own initiative, without the participation of a private property owner, finance the costs of the improvements, and become the sole beneficiary of the reimbursements that are contributed. A city or county may be reimbursed only for the costs that benefit that portion of the public who will use the improvements within the assessment reimbursement area. A city or county may not be reimbursed for improvements that will benefit the general public. RCW 35.72.050 also authorizes WSDOT participation in the same manner and subject to the same restrictions as cities or counties. However, the appropriate city or county is to act as WSDOT's agent through an Interlocal agreement.

3.C. BUDGETING, ACCOUNTING, AND REPORTING

One of the more crucial responsibilities of the county engineer or public works director (PWD) is the custodianship of the funds allotted for the execution of his/her duties. A solid understanding of the county finance process is essential if

the county engineer or PWD is to be a true partner with other officials within the county.

3.C.1. General Financial Management Issues

The overall financial management of counties is vested in the county commissioners or council (referred to in statute as the "legislative authority") in cooperation with the county auditor, treasurer, and assessor. The responsibilities and authorities of these county elected offices are clearly set forth in Title 36 RCW. The county legislative authority specifically is charged with "Fix[ing] the amount of county taxes to be assessed...", "[A]udit[ing] the accounts of all officers having the care, management, collection, or disbursement of any money belonging to the county...", and "...hav[ing] the care of the county property and the management of the county funds and business..." [RCW 36.32.120(4), (5), and (6)].

The basic county budgeting process is described in RCW 36.40 and the particulars of the Road Fund are in RCW 36.82. These two chapters, in fact virtually all of Title 36, are required reading for the successful manager.

3.C.2. The Road Fund

The County Road Fund (or just "Road Fund") is defined as a *special revenue fund*, which differs from the General Fund and proprietary funds such as ER&R or Solid Waste (proprietary funds generate their own revenue based on sales or services performed). The "special revenue" definition indicates that certain funds that are earmarked for county road purposes must be credited to and deposited in the county road fund [RCW 36.82.010]. Typically the most significant of such funds that are of interest to county engineers include the property tax road levy, receipts from the motor vehicle fund (general MVFT distributions, Rural Arterial Trust Account funds, and County Arterial Preservation Account funds), federal reimbursements (TEA 21 funds, Federal Forest funds), and State timber funds. There are, of course, a multitude of other, typically smaller, funds which are attributed to the road fund (see 3.C.5. following, "Report to the Secretary of Transportation"). For more information on road fund revenue, see Section 3.B.

As with all special revenue funds, there are limitations on how such funds can be spent. RCW 36.82.070 through .145 describes those limitations. One area of continuing controversy is the expanding practice of requiring the road fund to pay for general county services such as purchasing, central services, traffic law enforcement, prosecutor services, etc. Such interdepartmental or interfund payments for services are permissible as long as the payments and services are equitable. It is highly advised that such interdepartmental or interfund arrangements be substantiated based on some sort of cost allocation model in which both costs and services are measurable. The key statutory reference in this area is contained in RCW 43.09.210, which states in part:

"All service rendered by...one department...to another, shall be paid for at its true and full value by the department...receiving the same, and no department...shall benefit in any financial manner

whatever by an appropriation or fund made for the support of another."

Historically, the burden of proof falls upon the county when the State Auditor questions such interfund and interdepartmental transfers.

3.C.3. The BARS System

An important State player in county government is the State Auditor's Office (SAO). The Office prescribes local governments' uniform budgeting, accounting, and reporting system [RCW 43.09.200] and provides other services such as training and technical assistance. Each county auditor or chief financial officer is an ex officio deputy of the state auditor "...for the purpose of accounting and reporting on municipal corporations and in such capacity shall be under the direction of the state auditor". [RCW 36.22.140] The SAO also is responsible for conducting regular audits of local government entities, for which the entity being audited pays [RCW 43.09.280]. Results of those audits are published in individual audit reports for the various entities, copies of which are forwarded to CRAB to review any issues related to the Road Fund.

BASIC PROVISIONS

RCW 43.09, "State Auditor", provides for the basic authority of the SAO in formulating and prescribing the accounting and reporting systems to be used by all local governments, including counties [RCW 43.09.200 - .2855]. The requirement to use such procedures and to provide assistance as regards the responsibilities of the county engineer is specified in RCW 36.80.060, which says:

"The county engineer shall maintain in his office complete and accurate records of all expenditures for (1) administration, (2) bond and warrant retirement, (3) maintenance, (4) construction, (5) purchase and operation of road equipment, and (6) purchase or manufacture of materials and supplies, and shall maintain a true and complete inventory of all road equipment. The state auditor, with the advice and assistance of the county road administration board, shall prescribe forms and types of records to be maintained by the county road engineers."

THE BARS MANUAL

Every local government is required to use the SAO's *Budgeting, Accounting, and Reporting System (BARS)*. For purposes of financial reporting, local entities are divided into two groups, Category 1 (counties over 50,000 in population and cities over 25,000 in population) and Category 2 (everyone else). Although the county engineer is normally not directly responsible for SAO compliance (you are accountable, however, if your staff errs!), it is important to have at least a general knowledge of governmental accounting if for no other reason than to be able to talk the same language as your accountant. The BARS Manual, although no substitute for formal governmental accounting experience, does provide a good overview and some insightful guidance to the basic processes. The minimum sections to become familiar with for just the road fund are: Part One – Chapter 3, "Nominal Accounts: Resources"; Part One – Chapter 4, "Nominal

Accounts: Expenditures/Uses”; and all of Part Two, “Budgeting”. One of the most important functions of the county engineer is knowing where the money is! A good accountant is important, but you had better be able to understand what the accountant is doing – and why.

3.C.4. Regular and Special Audits

Each year (or every two years, for smaller entities) the entire county is audited by an examiner from the State Auditor’s Office [RCW 43.09.260]. As part of this annual audit, both the overall road fund and individual projects and/or accounts maintained by the county engineer will be examined [RCW 36.80.080]. This will, of course, include both CAPP and RAP revenues and expenditures. Both of these CRAB-administered funds also have their own WAC rules containing accounting and audit provisions. Should there appear to be ‘irregularities’ in these two programs, the CRABoard can request a special audit. In addition to the state funds, any federal funds you may receive during the year are also frequently audited, as SAO has been delegated oversight of such federal funds as well.

Do not treat this apparent imposition on your and your staff’s time as a nuisance or, worse, an attack on your personal integrity. If you and your staff have done the professional job of money management that is expected (and has been spelled out by the BARS Manual), the annual audit will be relatively simple, straightforward, and completed in a short amount of time.

Most state examiners conduct themselves as the professionals they are. From time to time, however, you may be dealing with one of the newer ones for whom this audit is among the first they have done. An apparently over-zealous attitude may sometimes arise, leading to friction and misunderstandings. Please remember that these people, too, have supervisors and you should move your concerns and frustrations to that level when troubles arise. As a last resort, please remember that CRAB staff has developed and nurtured a good working relationship with key members of the State Auditor’s Office at the Olympia headquarters and can assist in restoring professional communications.

3.C.5. Special Financial Reporting

ANNUAL REPORT TO SECRETARY OF TRANSPORTATION

RCW 36.75.260 requires each county to compile and submit an annual report on ‘county highway operations’ to WSDOT by May 1 of each year on forms provided by WSDOT. Currently, the standard form includes a section on revenues by BARS code, expenditures by BARS code, and a summary of your road-related funds plus a section to summarize all bond and loan transactions. This report is typically completed by your department accountant. CRAB also receives a copy from WSDOT.

ANNUAL CONSTRUCTION REPORT

Paralleling the Annual Construction Program (ACP), which details the specific projects to be worked on for a calendar year (see Section 5.E.), is the report of

actual work done – the Annual Construction Report. This report of accomplishments is in a format similar to the ACP.

Although there is no statutory requirement for this report, it is essential for CRAB to fulfill its responsibility for monitoring day labor limits. CRAB has developed and adopted a WAC rule on this subject (WAC 136-16-050) which is a subsection of the Annual Road Program WAC and, therefore, a Standard of Good Practice. CRAB also provides a standard format for this report (both on paper as well as in electronic format) which is due to CRAB by April 1 of each year.

CERTIFICATION OF ROAD LEVY

As part of the CRABoard's responsibility in ascertaining each county's eligibility for receiving Rural Arterial Program funds, each county is required to annually submit a Road Levy Certification Form which details the rate and amount of the property tax road levy and the amount and rate, if any, budgeted for traffic law enforcement in accordance with RCW 36.33.220 and/or any other purpose or service to be provided in the unincorporated area of the county (WAC 136-150-021). See also the provisions of RCW 36.79.140.

CERTIFICATION OF ROAD LEVY EXPENDITURES

RCW 36.79.140 provides that only those counties that during the preceding twelve months have spent all revenues collected for road purposes only for such purposes, including traffic law enforcement, as are allowed by Article II, Section 40 of the Washington State Constitution, are eligible to receive funds from the Rural Arterial Trust Account.

Annually by March 15, each county must submit to CRAB a Certification of Road Levy Expenditures. If a county indicates in its Certification of Road Levy that it is 'diverting' funds from the property tax road levy for traffic law enforcement, and if it desires to retain its eligibility for RAP funds, a form identifying such expenditures must be submitted to CRAB. There are no special accounting requirements for those expenditures as the method and level of detail will vary from county to county, and CRAB does not prescribe specific methods. The certification does, however, require the signature of the county sheriff, the county auditor, and the chair of the board of county commissioners or the county executive.

CERTIFICATION OF EXPENDITURES FOR FISH PASSAGE BARRIER REMOVAL

RCW 36.79.140 also provides that only those counties that during the preceding twelve months have spent all revenues collected for road purposes only for such purposes, including removal of barriers to fish passage and accompanying streambed and stream bank repair as specified and limited by RCW 36.82.070, as are allowed by Article II, Section 40 of the Washington State Constitution, are eligible to receive funds from the Rural Arterial Trust Account.

Annually by March 15, each county must submit to CRAB a Certification of Road Fund Expenditures for Fish Passage Barrier Removal, which specifies the amount of road funds used for projects outside county rights-of-way.

3.C.6. Purchasing Regulations

Purchasing authority varies widely across the state, and depends largely upon county size and whether a formal purchasing department has been established. Purchasing statutes are codified in RCW 36.32 and 39.04; both statutes are relevant to public works departments. The basic purchasing authority that applies to road departments and ER&R funds can be found in RCW 36.32.235 through .270. In general, unless the legislative authority decides otherwise, the county engineer/public works director can control all purchases made using either road fund or ER&R revenues. However, the formalities of the required purchasing processes change with the dollar amounts involved.

At the low end of the purchasing spectrum, advertisement and formal sealed bidding may be dispensed with upon order of the legislative authority for purchases of less than \$2,500 and public works contracts of less than \$10,000. Immediately after an award is made the bid quotations that were obtained must be recorded and opened for public inspection.

For purchases of between \$2,500 and \$25,000, the vendor list roster process described in RCW 39.04.190 may be used. That process requires that lists of potential vendors be solicited twice each year and that the county adopt a procedure for securing quotes from at least three different vendors, and for awarding contracts to the lowest responsible bidder. Quotations must be recorded and made available for public inspection immediately after award. For public works contracts of between \$10,000 and \$200,000, the small works roster described in RCW 39.04.155 may be used.

Purchases and public works contracts that exceed the thresholds described above must be advertised and awarded in accordance with RCW 36.32.245. Bid specifications must be written and filed with the clerk of the legislative authority for public inspection. The purchases or contracts must be advertised in the county's newspaper of record at least once at least thirteen days before the bid opening. Bids must be in writing and must be filed with the clerk. The lowest responsible bidder must be awarded the bid unless all bids are rejected. Bids for public works contracts must also include a bid bond.

The environment in which purchases are made varies widely across the state. The decisions that are made about how or whether to go to bid for different types of purchases or projects need to fit the character of the community. Above all else, every transaction must have the appearance of fairness to be acceptable.

See Figure 3-5 for a flow chart that summarizes purchasing in Washington Counties.

3.C.7. Road Fund Diversion

RCW 36.82.020 indicates that, "Any funds accruing to and to be deposited in the county road fund arising from any levy in any road district shall be expended for

proper road purposes". We tend to say that any such funds not expended for "proper road purposes" have been diverted from the road fund.

In reality, however, "Diversion" specifically refers to those road levy funds that are intended for the road fund but never make it there because they have been earmarked for other purposes and deposited into the current expense fund.

Diversion – with a capital "D" – is allowed by RCW 36.33.220, which states:

"The legislative authority of any county may budget, in accordance with the provisions of Chapter 36.40 RCW, and expend any portion of the county road property tax revenues for any service to be provided in the unincorporated area of the county..."

RCW 36.82.040 requires that the revenues produced from county road taxes so diverted shall be placed in a separate and identifiable account within the county's current expense fund. The State Auditor's Office prescribes the following procedures for handling diverted road levy:

1. County road taxes being diverted to the current expense fund must be shown in the county's current expense budget as an estimated revenue.
2. It must be clearly separated from the estimated revenue from regular property taxes.
3. The portion of county road taxes identified for Diversion will not be levied for the road fund and then transferred to the current expense fund. It must be receipted directly into the current expense fund. [There is a specific BARS code and revenue account entitled "Diverted County Road Taxes" that must be used.]
4. Counties that divert some portion of county road taxes must develop accounting procedures that will document that the diverted funds were used to provide services in the unincorporated area of the county.

Due to significant pressures on the current expense funds, diversion in its several forms has become significantly common. The most recent figures (2004 road fund budgets) show twenty-eight counties diverting road levy funds. Most are still using the funds to subsidize traffic policing efforts, which are considered "proper road purposes".

This is not to say that these are the only counties that provide road fund support for traffic policing. For the year 2004, twenty-seven counties will pay a portion of traffic policing costs, either through diverted road levy, direct payments for services, or transfers of funds from the road fund. The amounts ranged from \$40,000 to nearly \$9 million. The statewide total is nearly \$29 million.

IMPACTS OF DIVERSION

RCW 36.79.140 states:

"...Only those counties that during the preceding twelve months have spent all revenues collected for road purposes only for such

purposes, including traffic law enforcement, ...are eligible to receive funds from the rural arterial trust account..."

This section exempts from this requirement counties with a population of less than eight thousand, counties that expend these funds pursuant to a voter-approved action under RCW 84.55.050, and counties that divert road levy funds pursuant to RCW 39.89.

For all other counties, we see that using road fund dollars for other than proper road purposes will result in losing eligibility for RAP funds. This is true regardless of whether a county is using capital "D" Diversion or small "d" diversion. Diversion of road funds also will impact a county's ability to obtain a Certificate of Good Practice and may jeopardize its gas tax revenues.

TRAFFIC LAW ENFORCEMENT

There is little guidance as to precisely the limits or definitions of '... traffic law enforcement, as are allowed to the state by Article II, Section 40 of the state Constitution...' [RCW 36.79.140]. It is important that both the costs and the specifics of the traffic law enforcement and support to be provided are understood by all at the time budgets are being assembled.

Although not a formal or legal opinion, CRAB considers the following activities conducted in or on behalf of the unincorporated portion of your county to be allowable "traffic law enforcement" items:

1. Investigation and enforcement of laws relating to oversize or overweight vehicles on county roads;
2. Investigation and enforcement of other traffic laws and regulations, especially enforcement of speed limits in work zones; and
3. Investigation of all accident scenes and subsequent preparation and testimony in court.

In areas for which there are assigned pro rata percentages to activities or staff which are providing non-traffic law enforcement services as well, you should make all reasonable efforts to ascertain or otherwise substantiate the percentage assignments. Without specific guidelines, the test, should you or the sheriff be questioned or audited, is that of reasonableness. It is recommended that you encourage the sheriff to review his/her internal accounting procedures to insure that up-to-date, appropriate, and supportable cost data are kept should some portion of the road fund be allocated to the sheriff's department for said traffic law enforcement.

To aid in assuring accountability for traffic law enforcement, CRAB has developed a model agreement intended to be used between the Board of County Commissioners and the County Sheriff. Remember that for independent elected officials, this agreement cannot be mandated. It is however a good tool for both the Board and the Sheriff to demonstrate to both the County Engineer and the Public their desire and willingness to be forth right and accountable.

3.C.8. Levy Shifts

Another increasingly common mechanism for transferring revenue from the road levy to current expense without diversion is the levy shift. The levy shift as allowed in RCW 84.52.043 permits the current expense levy to be increased from the basic \$1.80 per \$1,000 assessed valuation to a maximum of \$2.475 per \$1,000 as long as: (1) the combination of the current expense and road levies does not exceed \$4.05, and (2) no other taxing district has its levy reduced due to the increased county levy. Since the allowable sum of these two senior levies remains at \$4.05 per \$1,000 assessed valuation, a levy shift may result in a decrease in the road levy rate.

IMPACTS OF LEVY SHIFTING

A levy shift is attractive to county legislative authorities not only because it increases current expense revenues, but also because it may, in certain cases increase overall county revenues. This phenomenon occurs because the road levy is assessed only in the unincorporated area of the county, whereas the current expense levy is assessed countywide, including incorporated cities and towns. It is possible, though yet uncommon, for the road department to be reimbursed for its resultant losses after a levy shift and for current expense to profit solely from the revenues generated from the increased extent of the assessment base.

3.D. STATE AUDITOR'S OFFICE GUIDELINES

The BARS Manual includes a section that contains guidelines and interpretations of various BARS topics, including the discussion of diverted county road taxes. The State Auditor's Office amends and adds to these guidelines from time to time as needed. In the near future, guidelines for the implementation of GASB 34 will be added.

3.E. GOVERNMENTAL ACCOUNTING STANDARDS BOARD STATEMENT NO. 34

The Governmental Accounting Standards Board (GASB) is a private, non-profit organization formed in 1984 to develop and improve accounting and financial reporting standards for state and local governments. Governments must follow GASB standards to earn "clean" audits. Over the years, GASB has issued a number of "statements" addressing various aspects of governmental financial accounting and reporting. Virtually all of them have held little interest for County Engineers and Public Works Departments. That is, until Statement No. 34 (GASB 34) was issued in June 1999.

This statement introduces a major change to the governmental financial reporting that is done. Its purpose is to "...enhance the understandability and usefulness of the general purpose external financial reports of state and local governments to the citizenry, legislative and oversight bodies, and investors and creditors".⁸

The portion of GASB 34 that impacts Public Works Departments is the requirement to report all infrastructure assets. Traditionally, state and local governments have not been required to report general infrastructure assets (roads, bridges, etc.) in their financial statements. In an effort to provide a "private-sector-like" focus to

⁸ GASB Statement No. 34, June 1999.

governmental financial statements, GASB 34 requires that all capital assets, including general infrastructure assets, be capitalized in the financial statements at their historical cost or estimated historical cost. In general, this requirement applies retroactively to major infrastructure assets that were acquired after June 15, 1980, or that received major renovations, restorations, or improvements since that date. Once the infrastructure assets have been capitalized, they then can be reported annually using either depreciation or the "Modified Approach", which requires documentation that the assets are being maintained in an acceptable manner.

In Washington State, local agencies began using GASB 34 requirements and procedures when reporting in 2003 for the 2002 fiscal year.

3.F. INTERFUND LOANS

The State Auditor's Office considers it permissible to make interfund loans of "those municipal moneys which are clearly inactive or in excess of current needs **and** legally available for investment". Minimum acceptable procedures have been established for making and accounting for interfund loans:

1. The legislative authority must, by ordinance or resolution, approve all interfund loans. The authorization for the loan must include a planned schedule of repayment of the loan principal and must set a reasonable rate of interest to be paid to the lending fund.
2. Interest should be charged in all cases, unless (1) the borrowing fund has no other source of revenue other than the lending fund; or (2) the borrowing fund is normally funded by the lending fund.
3. The borrowing fund must anticipate sufficient revenues to be in a position over the period of the loan to make the specified principal and interest payments as required in the authorizing ordinance or resolution.
4. The term of the loan may continue over a period of more than one year, but must be "temporary" in the sense that no permanent diversion of the lending fund results from the failure to repay by the borrowing fund. A loan that continues longer than three years will be scrutinized by the auditor for a "permanent diversion" of moneys. (Note: these restrictions and limitations do not apply to those funds which are legally permitted to support one another through appropriations, transfers, advances, etc.)
5. Appropriate accounting records should be maintained to reflect the balances of loans in every fund affected by such transactions.

STATUTORY NET DISTRIBUTION OF MOTOR VEHICLE FUEL TAX

2004 (RCW 46.68.090)

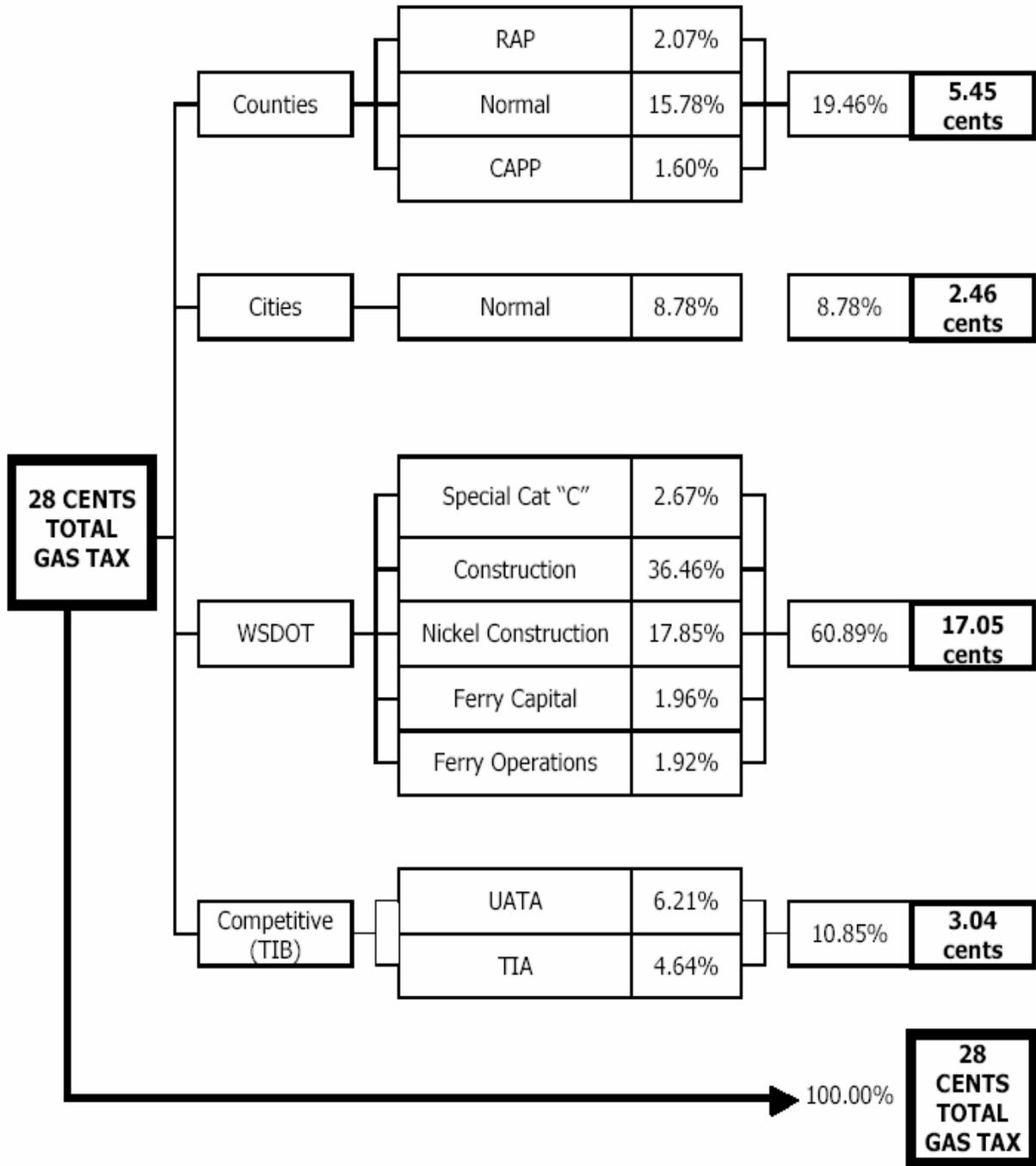


Figure 3-1

MOTOR VEHICLE FUND – SUMMARY DISTRIBUTION TO COUNTIES

(RCW 46.68.070)

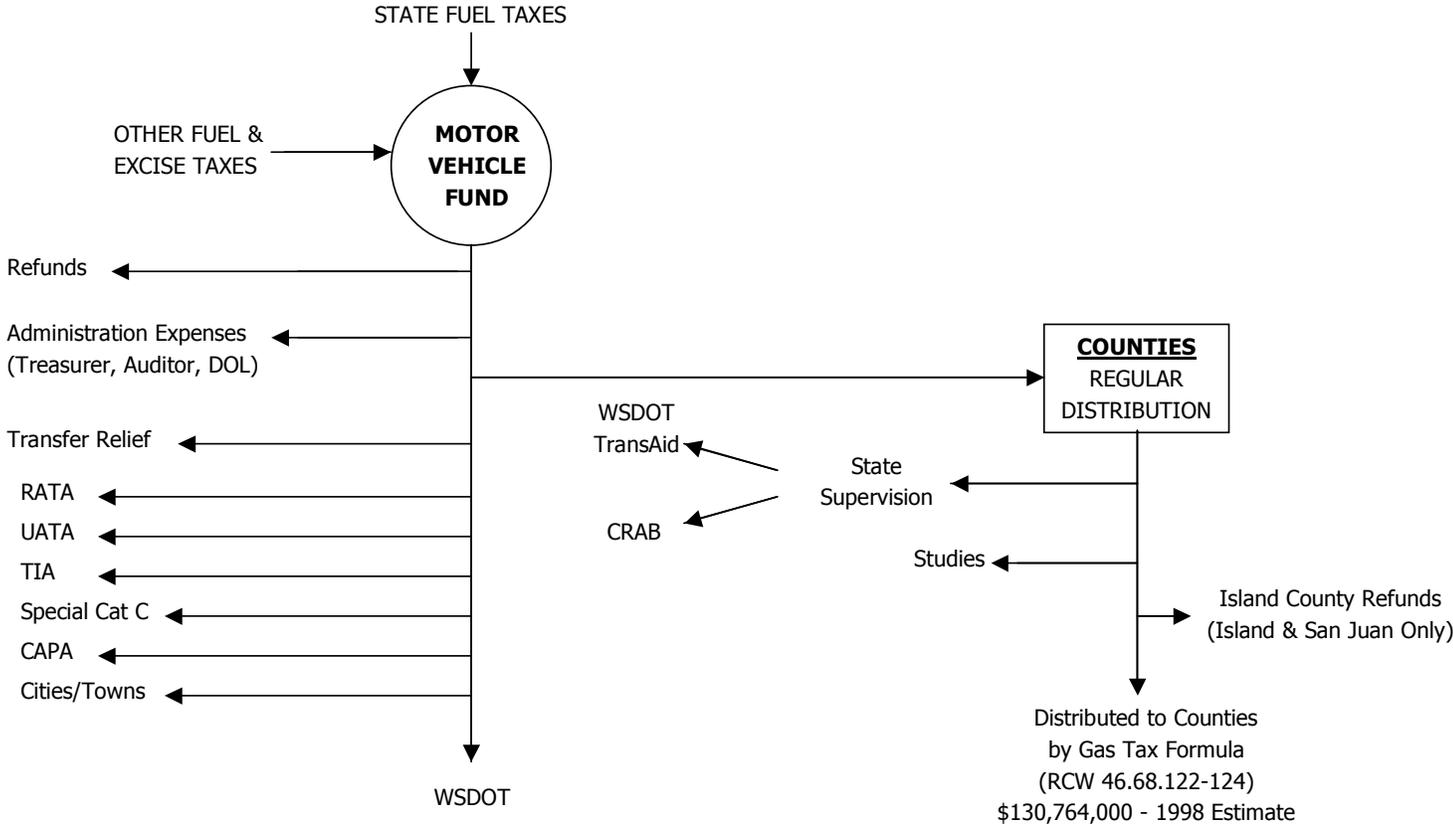


Figure 3-2

COUNTY GAS TAX DISTRIBUTION FORMULA

(RCW 46.68.122-124)

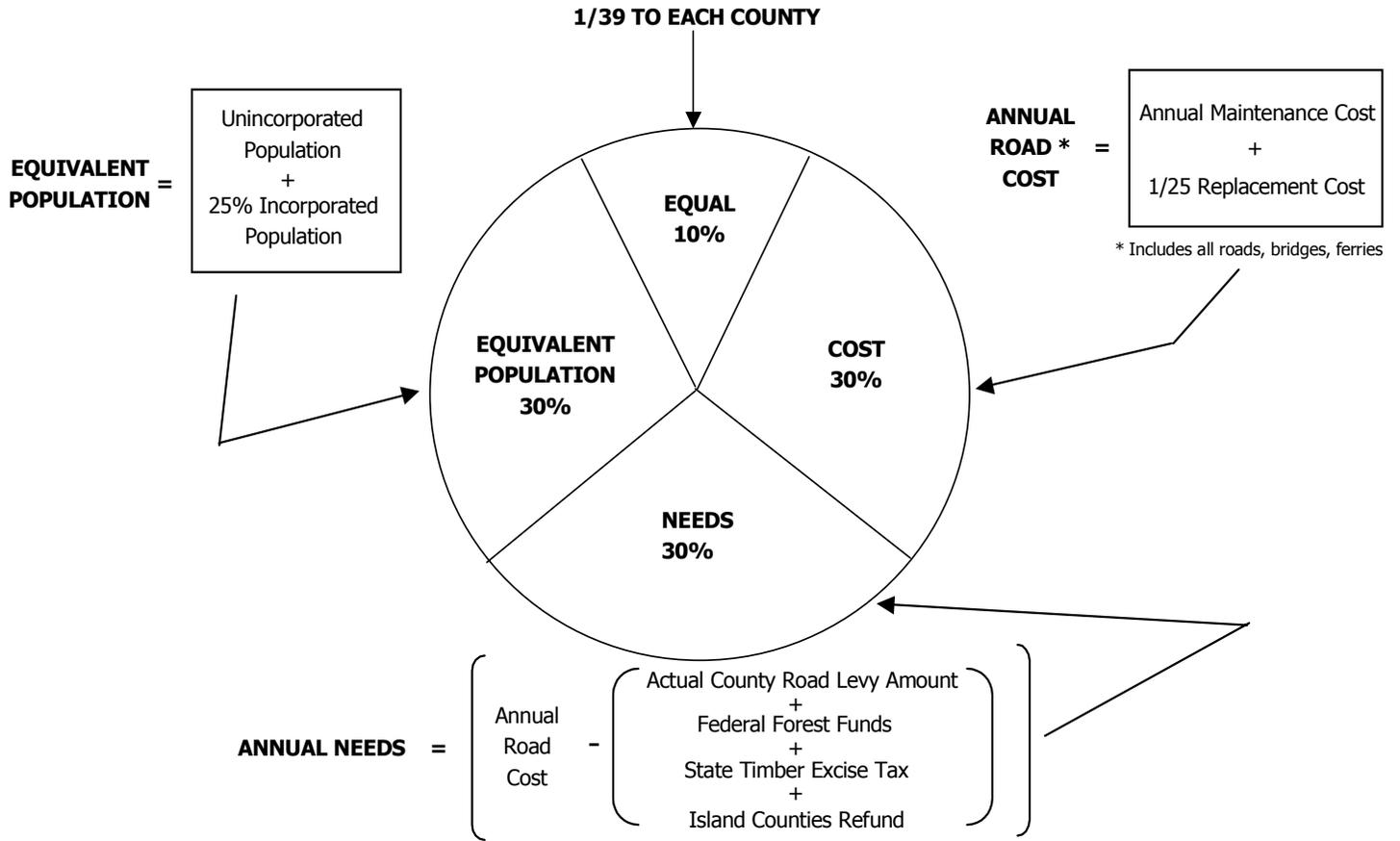


Figure 3-3

RAP BIENNIAL AND ANNUAL PROGRAM CYCLES

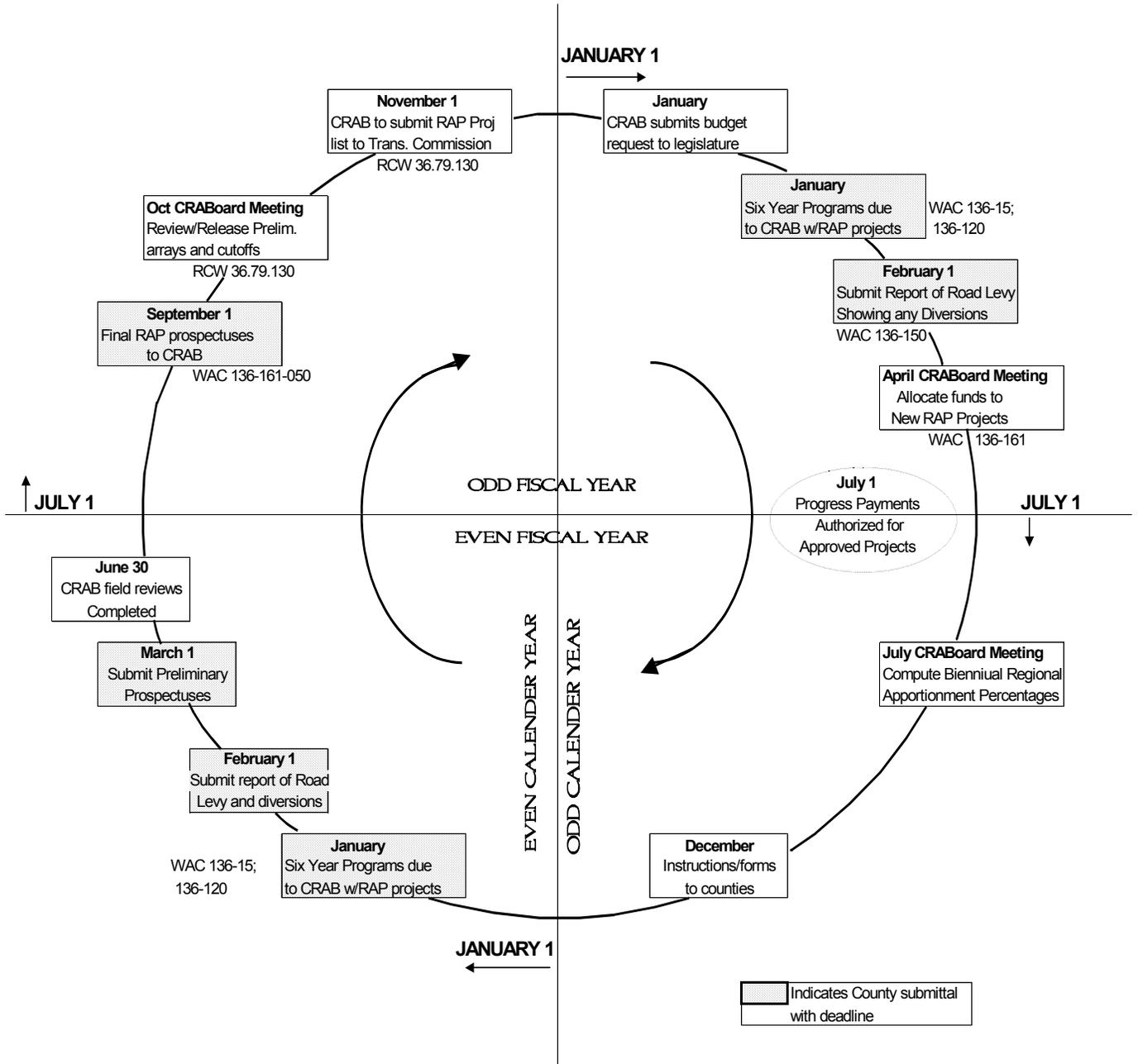


Figure 3-4

Purchasing in Washington Counties

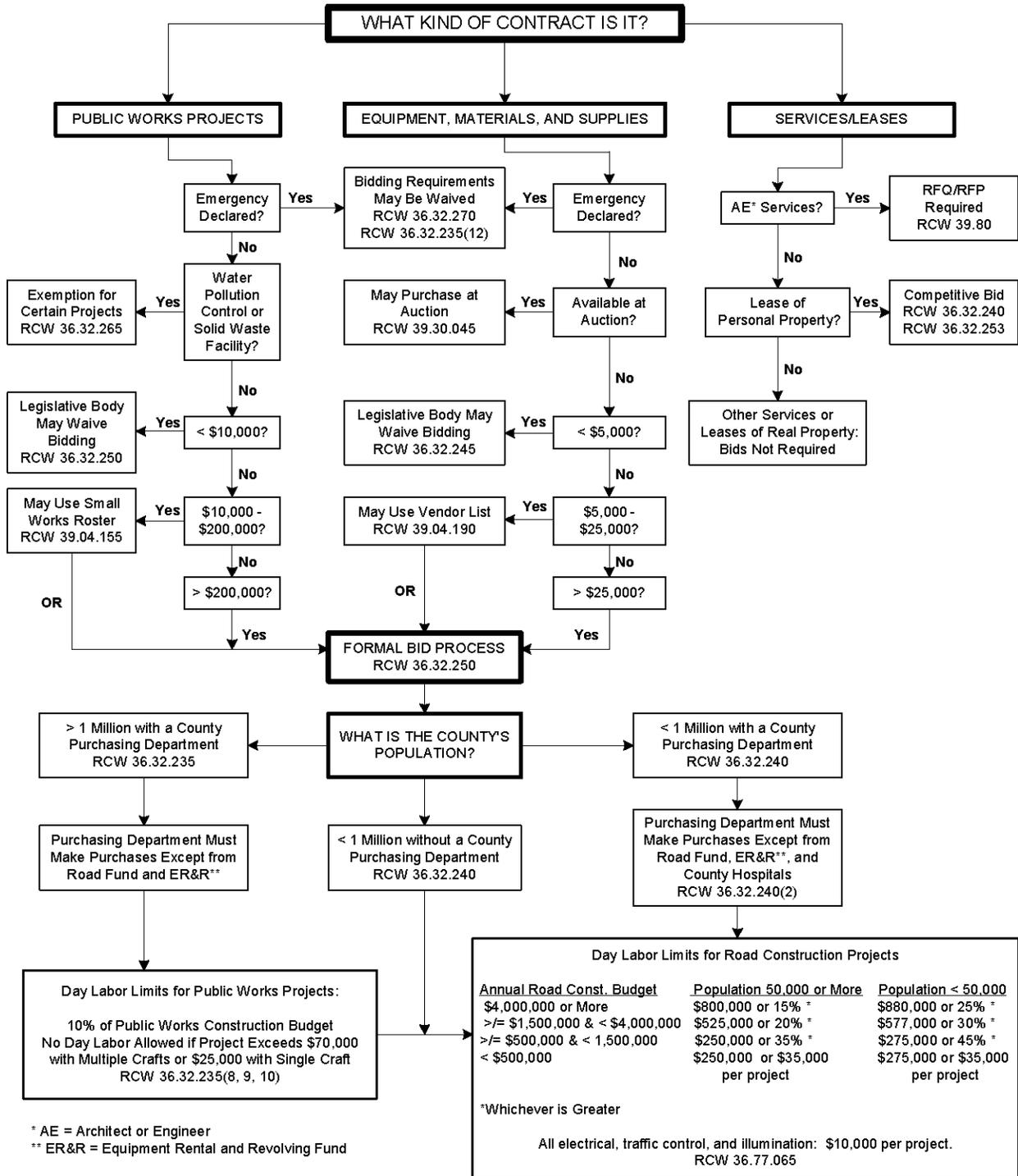


Figure 3-5

4.A. OVERVIEW

With limited revenues, mounting growth and congestion, more stringent construction requirements, and escalating environmental awareness, the program development and project selection process is coming under increased scrutiny. This is an arena where the pro-growth and the anti-growth forces often collide and the County Engineer is in the middle of the fray – responsible for providing a professional product and meeting the requirements of Law, while attempting to satisfy the disparate interests.

4.B. GENERAL PLANNING REQUIREMENTS

All counties in the state have the authority to adopt a comprehensive plan. Those counties meeting the population and rate of growth thresholds of the Growth Management Act are required to develop a comprehensive plan based on specific criteria. Any county adopting a comprehensive plan must include a circulation or transportation element that is consistent with the land use element. The steps for developing the GMA transportation element are germane to any good planning process and should be generally followed even for non-GMA plans. The key to success of any planning effort is a major emphasis on public participation at every step in the development of the plan.

4.B.1. The Planning Enabling Act of 1959

The original Planning Enabling Act of 1959 first defined the establishment of the planning commission and gave the counties authority to voluntarily enact official controls, such as subdivision regulations and zoning districts. Any county exercising this authority is required to have, at a minimum, an adopted comprehensive plan containing at least a land use element, a coordinated circulation element, and necessary supporting maps and documents [RCW 36.70.330].

4.B.2. The Growth Management Act of 1990

In 1990 – in response to rapid population growth and concerns with suburban sprawl, environmental protection, quality of life, and related issues – the Growth Management Act was adopted by the Legislature and codified as RCW 36.70A. For counties meeting the thresholds of population and growth rates, comprehensive planning and the enactment of official controls became mandatory. The most notable effect was that all counties were required to enact regulations for the preservation of environmentally sensitive sites (critical areas) and for the protection of agricultural, forest, and mineral resource lands.

Twenty-nine of the 39 counties are required or have chosen to plan under the GMA. These counties include about 95% of the state's population. Although the GMA provides that counties are regional governments and cities are the primary providers of urban governmental services within urban growth areas, approximately 42% of the state population lives in the unincorporated areas where they likely receive government services from a county.

The GMA provides a framework for regional coordination, and counties planning under the GMA are required to adopt countywide planning policies to guide plan

adoption within the county and to establish urban growth areas (UGAs). Local comprehensive plans must include the following elements: land use, housing, capital facilities, utilities, transportation, and, for counties, a rural element. Shoreline master program policies are also an element of local comprehensive plans.

The GMA establishes the primacy of the comprehensive plan. The comprehensive plan is the starting point for any planning process and the centerpiece of local planning. Development regulations (zoning, subdivision, and other controls) must be consistent with comprehensive plans. State agencies are required to comply with comprehensive plans and development regulations of jurisdictions planning under the GMA.

Three Growth Management Hearings Boards resolve disputes concerning comprehensive plans and development regulations adopted under the GMA. The Governor has the authority to impose sanctions on cities, counties, and state agencies that do not comply with the GMA, as determined by a hearings board. These sanctions can include the withholding of a portion of MVFT, Urban Arterial Trust Account, Transportation Improvement Account, and Rural Arterial Trust Account funds. Counties not in compliance with the GMA also may not apply for Public Works Trust Fund loans or Centennial Clean Water grants and may receive less favorable reviews when applying for other state grant and loan programs.

Since the initial adoption of the GMA, Washington's population has increased by more than 1.4 million. Coordination among state and local governments has increased, with greatly improved data sharing, conflict resolution, and development of sustainable solutions to problems with economic development, water quality degradation, infrastructure financing, regional transportation capacity, catastrophic flood and fire damages, loss of natural resource lands, housing affordability, and jobs-to-housing balance.

Most communities are using their comprehensive plans and development regulations to make and stick to decisions about growth and development, while continuing to monitor, update, and improve their growth management work. The role of counties as providers of regional services and of cities as primarily providers of urban services is well defined. GMA is widely used as a framework for other state statutes and policies related to land use practices, environmental protection, and sustainable development.

GMA COMPREHENSIVE PLANS⁹

Under the GMA, each city and county is to adopt a comprehensive plan identifying where and how growth needs will be met. Adjacent jurisdictions are required to have plans that are consistent. These plans then provide the basis for many of the policies, regulations, and budget decisions that cities and counties will make.

Some of the benefits of having effective GMA comprehensive plans are:

⁹ OCD Growth Management Program

- Cities and counties integrate decisions about land uses, transportation, water capacity, public facilities, natural resources, environmental protection, economic development, housing, and other issues.
- Fiscal accountability is built into GMA plans. Local governments identify the capital facility needs, along with estimated costs and revenues for each facility. Planning for these facilities is linked with land use decisions about the location and density of population growth.
- Developers and citizens know what to expect as communities make clear decisions and as jurisdictions coordinate with each other and with local districts that provide service.

Communities planning under the GMA have completed their first comprehensive plans. They are working to carry out the goals and policies of the plans through development regulations. Under the GMA, development regulations are to be consistent with the comprehensive plan.

Many local governments are now monitoring their plans to make sure the goals and policies adopted are managing growth in a way that will achieve their vision for the future. Under the GMA, communities are to continually review and evaluate their comprehensive plans. They are to review and revise their comprehensive plans at least every five years after the year 2002 to make sure they meet the goals and requirements of the GMA. Local governments can amend comprehensive plans once a year.

Although many of the GMA activities are taking place in planning departments, it is essential for the County Engineer and/or Public Works Director to be involved in the overall development of the plan since transportation is a large piece of the puzzle.

URBAN GROWTH AREAS (UGAs)

The Urban Growth Areas (UGAs) required by RCW 36.70A.110 are intended to reduce sprawl by predetermining where urban density growth will occur over the next twenty years. UGAs are designated by a county, with input from towns and cities. The UGA is one of the major tools provided by the GMA for shaping where urban development should be encouraged and where the limits to that growth should end. UGAs are areas where growth and higher densities are expected and are supported by urban services. This will allow for better infrastructure planning and concentration of financial resources. Also, by directing growth into urban areas, natural resource areas, such as farms and forestlands, can be conserved and the rural character of rural lands can be maintained.

Counties, in consultation with cities, assign expected population growth to UGAs. The UGA must include all incorporated cities or towns and often additional areas needed to accommodate urban growth for the 20-year projected population increase determined by the state's Office of Financial Management.

A county should be able to anticipate which facilities will be annexed by cities and should seek to establish cost-sharing responsibilities. The urban growth area generally contains much of the county's commercial tax base. Formally associating

urban growth areas with specific cities may accelerate the erosion of the counties' tax base through annexations.

GMA AND TRANSPORTATION¹⁰

Under GMA, transportation plans need to be consistent with the community's comprehensive plan. In addition, regions are to agree on a framework for transportation facilities and strategies. At the countywide level, cities and counties agree on broad transportation facility needs and priorities. At the local level, communities look at how people and freight will be moved from place to place, what destinations people will choose, and what types of transportation will be offered.

Communities also determine level of service (LOS) standards for automobiles, transit, and non-motorized modes such as bicycles and pedestrians. LOS standards should be an estimate of the expected quality and efficient performance of transportation facilities in a community. When a community identifies the LOS it is willing to provide, it determines how these services and systems will be expanded to serve the forecasted growth.

New housing, commercial, and industrial projects need to be developed in a manner that assures that the roads and other infrastructure supporting the project are in place or scheduled for completion when the project is complete. This is the basis of GMA's concurrency requirement.

- **The Transportation Element:** RCW 36.70A.070(6) requires that each comprehensive plan prepared in compliance with the GMA includes "A transportation element that implements, and is consistent with, the land use element". The transportation element must address the following:
 1. Land use assumptions used in estimating travel;
 2. Estimated traffic impacts to state-owned transportation facilities;
 3. Facilities and services needs, including (a) an inventory of air, water, and ground transportation facilities and services, (b) level of service standards for all locally-owned arterials and transit routes, (c) Level of service standards for all state-owned transportation facilities, (d) Specific actions and requirements for bringing into compliance locally-owned transportation facilities and services that are below an established level of service standard, (e) 10-year traffic forecasts, and (f) identification of state and local system needs to meet current and future demands.
 4. Finance, including (a) an analysis of funding capability, (b) a multiyear financing plan based on the needs identified in the comprehensive plan, and (c) if necessary, a discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure that level of service standards will be met;
 5. Intergovernmental coordination efforts; and
 6. Demand-management strategies.

¹⁰ OCD, Growth Management Program

The degree of involvement of public works departments in developing the transportation element covers the range from doing it all to hiring a consultant. Public participation is central to meeting the requirements of GMA. Although the SEPA/EIS process is suggested as a means to structure the development of the plan, GMA infers that enhanced public participation goes beyond that required by SEPA [WAC 36.70A.140]. The hearings boards appear to interpret this as requiring the county legislative authority to adopt a written procedure for enhanced public participation. If your department is taking the responsibility for public participation, be sure to review this part of GMA. Also, WAC 365-195-325 contains recommendations for preparation of the transportation element of the comprehensive plan.

GMA directly affects the development of the Six-Year Transportation Program required by RCW 36.81.121 because the transportation element and the six-year plan must be consistent. [RCW 36.70A.070(6)(c)] The capital facilities portion of the program must first address the deficiencies identified in the plan. Highway deficiencies are identified by establishing a level of service (LOS) standard and making a ten-year traffic forecast based on the land use alternatives. The transportation element must demonstrate that there are sufficient financial resources available to provide the adopted LOS over the first ten years of the plan. This financial sub-element is to form the basis for the Six-Year Transportation Program. [WAC 365-195-325.(6)(c)(ii)]

- **Level of Service (LOS):** The requirement to maintain highway capacity at an adopted level of service [WAC 365-195-325] has been a major challenge in transportation planning. As traffic volumes continue to increase faster than population growth, and financial resources are inadequate to meet the demands for new capacity, trade-offs must be made between growth and uncongested highways.

The adoption of level of service standards is a policy decision that establishes the accepted level of congestion for different classes of roads. It appears that most counties are using the traditional approach of calculating level of service from the Highway Capacity Manual. Some counties with large urbanized areas are using corridor-averaging methods, where the capacity of parallel roads of the same functional class is combined into one measure. Because GMA was originally aimed at urban growth problems, the LOS standards favor a volume to capacity approach. In areas where there is adequate capacity, some counties are developing standards that address the condition of the road. These standards are based on such considerations as thresholds for different surface treatments and adequacy of the road for year-round goods movement.

It is important to remember that it is the county's responsibility to correct existing deficiencies and the developer's to mitigate any future deficiencies attributed to a specific development. Given that the plan must be financially constrained, it becomes the county's responsibility to bring a currently deficient road up to the LOS standard within the first six years of the plan. While denying development permits because of current deficiencies would not negate the validity of the plan, it probably would not be politically acceptable. GMA

would suggest either readjustment of land use policies or reduction of LOS standards.

- **Concurrency Management:** One of the GMA's main features is the requirement for concurrency management, providing adequate public facilities for new development at the time of occupancy. [WAC 365-195-835] The definition of adequacy is developed locally and is measured by Level of Service (LOS) standards. In order for the plan to be accepted, the financial elements of the plan must demonstrate that sufficient funds are available to support development at the adopted LOS standards.

Development permits must be denied if essential public facilities cannot be made available at the time of development. In the case of county roads, the adequacy of facilities is defined as having sufficient capacity to operate at the adopted level of service standard. Since only arterials and transit routes are required to have established LOS standards, concurrency management can only apply to those roads. This would necessarily exclude local access roads from concurrency management systems. Condition and performance of these roads would have to be addressed at the SEPA review level.

GMA AND DEVELOPMENT REGULATIONS¹¹

Development regulations, such as zoning and subdivision ordinances, are local ordinances that carry out comprehensive plans. Before the GMA, many Washington cities and counties had land use regulations that were developed a piece at a time, not necessarily consistent with each other or based on a set of common goals. Some jurisdictions had no local regulations for development. Now, the GMA requires local governments planning under the GMA to adopt development regulations that carry out and are consistent with the comprehensive plan as well as the GMA itself.

Development regulations should take comprehensive plan policies to a more specific level of detail and clearly spell out rules for development, both for people who are developing and for people who will be affected by the development.

4.B.3. Regulatory Reform

In 1995, ESHB 1724 was passed by the State Legislature and codified as RCW 36.70B, Local Project Review. This statute is commonly referred to as "Regulatory Reform". It required local governments to make major changes in land use permitting and environmental review. It simplifies and standardizes permit processes so citizens and developers will know what to expect and when it will happen. It also coordinates the state's land use and environmental laws and makes other changes to the laws.

Under Regulatory Reform, local governments are to establish a consolidated permit system. They are to combine environmental review with permit review. A proposed project is to be reviewed just once, reducing the time it takes to get

¹¹ OCD, Growth Management Program

permits. Local governments also are to reduce the number of public hearings required to get a permit or appeal a permit decision.

In addition, local governments planning under the GMA need to meet specific deadlines set out in the law for: (1) notifying permit applicants if applications are complete; (2) issuing permits; and (3) notifying the public once an application has been received.

To streamline permitting, local governments are encouraged to do more detailed environmental review during the comprehensive planning process to cut down on the environmental analysis needed when individual development projects are reviewed later.

The law also makes the goals and policies of each local government's shoreline master program a chapter of its growth management comprehensive plan.

CONSISTENCY WITH DEVELOPMENT REGULATIONS:

RCW 36.70B.040 requires a proposed project to be consistent with a local government's development regulations or, in the absence of applicable development regulations, appropriate elements of the comprehensive plan adopted under RCW 36.70A. Consistency is determined by considering the following:

1. Type of land use;
2. Level of development (density);
3. Infrastructure and services needed to serve the development; and
4. Characteristics of the development.

Where the above topics have already been addressed in the plan or development regulations, the review process cannot go back and re-examine alternatives within the specific application review process. If flaws are discovered the correct procedure is to amend the regulations and/or plan, but this cannot delay or change the application's review. Given the uncertainty of the timing and intensity of land development, plan policies and development regulations need to be flexible in order to capture this uncertainty.

DEVELOPMENT AGREEMENTS:

RCW 36.70B.170 authorizes local governments to enter into a developer agreement with a person having "ownership or control of real property" within its jurisdiction. The agreement must:

"...set forth the development standards and other provisions that shall apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement."

RCW 36.70B.170(4) specifically states:

"The execution of a development agreement is a proper exercise of county and city police power and contract authority. A development agreement may obligate a party to fund or provide services, infrastructure, or other facilities. A development

agreement shall reserve authority to impose new or different regulations to the extent required by a serious threat to public health and safety."

Developer agreements, properly written, should protect both the developer and the county.

CONCLUSION:

Overall, regulatory reform has as its goal the simplification of the development process by predetermining what impacts result from general categories of development and what mitigation measures are appropriate for those categories. Then, during project review, assessment of impacts and necessary mitigation measures should be predictable for projects that fall within general criteria.

4.B.4. Regional Planning Organizations

There are two types of regional transportation planning organizations in Washington State: the Metropolitan Planning Organization (MPO) and the Regional Transportation Planning Organization (RTPO). The MPOs are in urban areas designated by the governor for the use of federal planning funds to develop transportation plans. The RTPOs are voluntary associations of local governments within a county or within geographically contiguous counties, for the purpose of establishing a coordinated planning program for regional transportation facilities as authorized by the Growth Management Act. Figure 4-1 shows the boundaries of the regional planning organizations in Washington State.

METROPOLITAN PLANNING ORGANIZATIONS (MPOs)

A Metropolitan Planning Organization (MPO) is a committee of local government officials established for the purpose of making transportation-related decisions at a regional level.

The 1974 Federal Aid Highway Act mandated the creation of an MPO in each area required to have a continuing, cooperative, and comprehensive (3C) planning process. In response to the need to coordinate federally funded projects in urbanized areas, the 1992 Act mandated that all urbanized areas over 50,000 in population establish a 3C planning process. This, in effect, also required them create MPOs.

Once an MPO has been formed, federal planning funds are available to carry out transportation planning functions within the urban area. The MPO discusses and votes on transportation issues of region-wide significance and decides which local transportation projects should be implemented. One of the ways in which this is accomplished is through adoption of a Long Range Transportation Plan that is updated every three to four years. Also, based on the needs identified through the long range planning process, the MPO develops and adopts a priority list of projects for implementation each year. This list is then used by the WSDOT to develop the State Transportation Improvement Plan.

Those MPOs with populations over 200,000 are called Transportation Management Areas or TMAs and have greater responsibilities, mainly dealing with air quality issues.

REGIONAL TRANSPORTATION PLANNING ORGANIZATIONS (RTPOs)

RTPOs are authorized by RCW 47.80.020 and are an extension of the MPO concept that creates a statewide organizing structure for the coordination of transportation planning through the use of regional policy boards in the less urban areas.

The RTPO is a formal organization with the voting membership composed of counties, cities, and towns within the region. The RTPO must encompass, as a minimum, all counties within the region and sixty percent of the cities representing seventy-five percent of the cities population. In urbanized areas, the RTPO and the MPO are one and the same.

Each RTPO is required to create a transportation policy board, which "shall provide policy advice to the regional transportation planning organization and shall allow representatives of major employers within the region, the department of transportation, transit districts, port districts, and member cities, towns, and counties within the region to participate in policy making". [RCW 47.80.040]

Major responsibilities of an RTPO are developing a regional transportation strategy and preparing a regional transportation plan. In addition, the RTPO sets specific direction for development and evaluation of the transportation element of comprehensive plans prepared by member jurisdictions [RCW 47.80.026] and certifies that local transportation elements are conform to GMA requirements and are consistent with the regional plan. [RCW 47.80.030]

In order to ensure statewide consistency in the regional transportation planning process, WSDOT has been given the authority to establish minimum standards for development of the regional transportation plan and to facilitate coordination between and among RTPOs.

All local TEA 21 enhancement funds are ranked by the RTPO for submission to WSDOT. Also, some counties use the RTPO for the competitive selection process for TEA 21 STP funds.

4.C. ENVIRONMENTAL ISSUES

4.C.1. State Environmental Policy Act

The State Environmental Policy Act (SEPA), codified as RCW 43.21C, was adopted in 1971 and directs agency decision makers to consider the environmental consequences of their actions. The Act provides for the orderly dissemination of information concerning agency actions and establishes the administrative process for conducting environmental reviews of planned activities. It is important for County Engineers to be familiar with the types of actions that require SEPA review and how that review is conducted.

WAC 197-11-704 defines "actions" as "...(a) New or continuing activity (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies; (b) New or revised agency rules, regulations, plans, policies, or procedures; and (c) Legislative proposals". Actions fall within one of two categories.

1. Project Actions [WAC 197-11-704(2)(a)]

A project action involves a decision on a specific project, such as construction or management activity located in a defined geographic area. Projects include and are limited to agency decisions to:

- a. License, fund, or undertake any activity that will directly modify the environment, whether the activity will be conducted by the agency, an applicant, or under contract.
- b. Purchase, sell, lease, transfer, or exchange natural resources, including publicly owned land, whether or not the environment is directly modified.

2. Nonproject Actions [WAC 197-11-704(2)(b)]

Nonproject actions involve decisions on policies, plans or programs. Examples of nonproject actions include:

- a. The adoption or amendment of legislation, ordinances, rules, or regulations that contain standards controlling use or modification of the environment.
- b. The adoption of comprehensive land use plans or zoning ordinances.
- c. The adoption of any policy, plan, or program that will govern the development of a series of connected actions. This does not include policies, plans, or programs that require approval of a federal agency prior to implementation.
- d. Creation of a district or annexations to any city, town, or district.
- e. Capital budgets.
- f. Road, street, and highway plans.

Note that the Six-Year Transportation Program and the Annual Construction Program fall under "f." on this list.

The key to administration of SEPA is the threshold determination, which is "the decision by the responsible official¹² of the lead agency¹³ whether or not an EIS is required for a proposal that is not categorically exempt". [WAC 197-11-797] An environmental checklist [WAC 197-11-960], filled out by the proponent of the action, is used as the basis for this determination. If an EIS is not required, a "determination of non-significance" (DNS) or a "mitigated determination of non-significance" (MDNS) must be granted. Prior to issuing a threshold determination – in many but not all cases – the agency must publish a legal notice of the review in order to allow public comments.

¹² "...that officer or officers, committee, department, or section of the lead agency designated by agency SEPA procedures to undertake its procedural responsibilities as lead agency." [WAC 197-11-788]

¹³ "...the agency with the main responsibility for complying with SEPA's procedural requirements." [WAC 197-11-758]

Not everything you do will need to be reviewed under SEPA. Listed under WAC 197-11-800 are the categorical exemptions (exempt from threshold determinations and EIS requirements), which include minor new construction, repairs, and maintenance activities along with many activities in the right-of-way. Part (2)(c) of WAC 197-11-800 appears to exempt most road construction that takes place within the existing right-of-way if it does not significantly increase the road's capacity. There are some exceptions to the categorical exemptions, most notably proposals that are located in environmentally sensitive areas. Restrictions on the list of categorical exemptions are identified in WAC 197-11-305.

Most projects that increase lane width or shoulder width have an associated increase in capacity based on the Highway Capacity Manual. It is your call as to whether it is significant. SEPA was written as a general framework for an environmental review process with a large degree of latitude given to local discretion.

Interestingly, each agency is required to adopt its own rules and procedures for implementing SEPA [WAC 197-11-900]. The details of how the review should be processed will be contained in your local codes. This is where the county will designate the responsible official. The county's thresholds for some categorical exemptions will also be in the local codes.

The major concern is to avoid project delays by challenges based on the lack of a SEPA review. Once the SEPA checklist process is understood, it is not overly time-consuming and can act as a valuable administrative structure for both internal and interagency project review. If a SEPA review is initiated at the last moment, unexpected comments or changes may seriously harm the project or your creditability.

PLANNED ACTIONS:

Planned actions are defined in SEPA, RCW 43.21C.031(2.a), as those projects for which adequate environmental review has already taken place at the plan or subarea plan stage and are therefore exempt from a SEPA threshold determination. Where the impacts of development are known, this designation will streamline the review process. Types of developments eligible as "planned actions" are designated by ordinance.

A word of caution about the concept of "planned actions" and permit review under RCW 36.70A.040 as described above. The idea is that impacts and appropriate mitigation can be determined at the plan or subarea plan level of review. Area wide estimations of impacts, such as traffic volumes from computer models, may understate individual development's need for on-site mitigation. If the projects are exempt from SEPA review, the opportunity to negotiate on-site mitigation may not be available.

COMBINING SEPA AND GMA¹⁴

More and more jurisdictions are recognizing the benefits of combining SEPA and GMA. When the two laws are combined, local governments can save money, improve environmental protection, and effectively provide for economic development. The benefits of combining SEPA and GMA, rather than complying with them separately, include:

- A savings in tax dollars through more efficient planning and permitting and how public services are provided;
- A reduction in time and cost to developers to obtain permits for many projects;
- A greater certainty about what kinds of developments will be allowed in different areas; and
- A greater degree of environmental protection due to a better understanding of how much growth the natural environment can handle and the cumulative impacts of development to the entire community.

Because the planning framework the GMA provides is stronger than previous planning laws, local governments are able to evaluate and make many land use and environmental decisions during the comprehensive planning stage rather than when permits are considered. If the plans are done well and plan decisions are based on environmental analysis, only those environmental issues about a site that have not been analyzed and addressed in the plan need to be considered for each permit proposed.

The Regulatory Reform Act of 1995 formalizes the shift in emphasis from projects to plans by requiring that local jurisdictions look first to their development regulations before turning to SEPA to mitigate project impacts. Proposals are analyzed to see if they are consistent with the comprehensive plan and the development regulations that carry out the plan. The primary role of SEPA is then to focus on the impacts that have not been addressed or the gaps in existing regulations.

4.C.2. National Environmental Policy Act

The National Environmental Policy Act (NEPA), codified as 42 USC 4321 et seq, was enacted as P.L. 91-190 on January 1, 1970, and established national policies and goals for the protection of the environment. NEPA aims to encourage harmony between people and the environment, to promote efforts to prevent or eliminate damage to the environment, and to enrich the understanding of ecological systems and natural resources important to the country.

NEPA contains “action-forcing” provisions that ensure federal agencies act according to the letter and the spirit of the law. These procedural requirements direct all federal agencies to give appropriate consideration to the environmental effects of their decision making and to prepare detailed environmental statements on recommendations or reports on proposals for legislation and other major federal actions significantly affecting the quality of the environment.

¹⁴ OCD, Growth Management Program

Agencies must establish specific criteria for classes of actions that (1) usually require an environmental impact statement (EIS), (2) normally require an environmental assessment (EA) but do not necessarily require an EIS, and (3) require neither an EA nor an EIS (the "categorical exclusions").

If an action requires an EIS, the agency must publish a Notice of Intent (NOI) and begin the scoping process. Then, the agency prepares the draft EIS (DEIS), solicits comments from affected parties and various governmental entities, and drafts the final EIS (FEIS) after considering the comments received.

The contents of the FEIS must be considered when making a decision on the proposed action. The agency must prepare a record of decision (ROD), a concise statement of its decision discussing its choice among alternatives and the means that will be employed to mitigate or minimize environmental harm. If the agency action does not fall within the category of actions designated as categorical exclusions or requiring an EIS, the agency must prepare an EA. The EA determines whether or not an EIS is needed. If the EA determines that an EIS is not needed, the agency must issue a finding of no significant impact (FONSI) that briefly explains why the agency's action will not have a significant impact on the environment.

Although NEPA requires agencies to take a "hard look" at the environmental consequences of their actions, it does not force them to take the most environmentally sound alternative.

What does this have to do with County Engineers? Any project that involves federal funds or federal permits must comply with NEPA. WSDOT's Local Agency Guidelines (LAG) contains a chapter that specifies the process to fulfill NEPA requirements and how SEPA and NEPA integrate.

4.C.3. Endangered Species Act

The Endangered Species Act (ESA) that was passed in 1973 replaced earlier laws enacted in 1966 and 1969, which provided for a list of endangered species but gave them little meaningful protection. The 1973 law has been reauthorized seven times and amended on several occasions, most recently in 1988. The ESA was due for reauthorization in 1993, but legislation to reauthorize it has not yet been enacted. The program has continued to receive appropriations while Congress considers reauthorization.

The purpose of the ESA is to conserve "the ecosystems upon which endangered and threatened species depend" and to conserve and recover listed species. Under the law, species may be listed as either "endangered" or "threatened". Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. As of November 8, 2004, 1,264 U.S. species are listed, of which 518 are animals and 746 are plants.

The law is administered by the Interior Department's U.S. Fish and Wildlife Service (FWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The FWS has primary responsibility for terrestrial and freshwater organisms, while the NMFS has responsibilities mainly for marine species such as salmon and whales.

Section 9 of the ESA makes it unlawful for a person to "take" a listed species. The Act defines "take" as "...to harass, **harm**, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." [Emphasis added] The term **harm** has been defined through regulations as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation..."

The law places major restrictions on many common past practices in development, construction, logging, and other activities that are consequences of growth. The restrictions have placed major financial burdens on the counties due to increased environmental mitigation costs, more expensive design requirements, and reduced revenues to the counties.

4.C.4. Clean Water Act

The Federal Water Pollution Control Act of 1948 authorized the preparation of comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary conditions of surface and underground waters. Since 1948, the original statute has been amended extensively to authorize additional water quality programs, standards, and procedures to govern allowable discharges, and funding for construction grants or general programs. Amendments in other years provided for continued authority to conduct program activities or administrative changes to related activities.

This legislation was originally enacted as the Federal Water Pollution Control Act of 1972, and was amended in 1977 and renamed the Clean Water Act (CWA). It was reauthorized in 1991. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's water. The Act sets up a system of water quality standards, discharge limitations, and permits.

If a project may result in the placement of material into waters of the United States, a Corps of Engineers' Dredge and Fill Permit (Section 404) may be required. The permit also pertains to activities in wetlands and riparian areas.

If the water quality of a water body is potentially affected by a proposed action, a National Pollutant Discharge Elimination System (NPDES) permit may be required. The Environmental Protection Agency (EPA) is responsible for this program; however, in most cases, EPA has turned this responsibility over to the states as long as the individual state program is acceptable. In Washington State, implementation and administration are under the jurisdiction of the State Department of Ecology (DOE).

NPDES PERMITTING PROGRAM

The Clean Water Act requires that all point sources discharging pollutants into waters of the United States must obtain a NPDES permit. While NPDES requirements also apply to wastewater treatment plants, sanitary sewer overflows, and combined sewer overflows, the County Engineer is most likely to become involved with the Storm Water Program. It should be noted that the stormwater program has two components: (1) Quality, which is linked to construction, and (2) Quantity, which is linked not only to construction but also to emergency management because of the flooding issue.

Amendments to the CWA made in 1990 established a two-phased approach to addressing storm water discharges. Phase I relied on NPDES permit coverage to address storm water runoff from: (1) "medium" and "large" municipal separate storm sewer systems (MS4s) generally serving populations of 100,000 or greater, (2) construction activity disturbing five acres of land or greater, and (3) ten categories of industrial activity. The Storm Water Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted storm water runoff. Phase II lowers the population threshold to 10,000 and the land area threshold to one acre.

The Phase II Final Rule, published in December 1999, impacts stormwater programs in the urban areas of Washington. The final rule extends NPDES permit coverage to the following two categories of storm water dischargers:

1. Operators of small MS4s located in "urbanized areas"¹⁵ as delineated by the Bureau of the Census. A "small" MS4 is any MS4 not already covered by Phase I of the NPDES storm water program.
2. Operators of small construction activities that disturb greater than or equal to one and less than five acres of land.

Small MS4s located outside of urbanized areas, construction activity disturbing less than one acre, and any other storm water discharges can be designated for coverage if the NPDES permitting agency (DOE) or EPA determines that storm water controls are necessary.

With the increasing restrictions of the Phase II program, a large portion of future road construction projects will be expected to meet increasingly stringent requirements. This is a rapidly evolving area as the EPA and DOE try to implement reasonable requirements with a minimum of funding support without solid federal backing. Within Washington State, DOE is trying to develop standards that can work in both urban and rural areas, while also accounting for dramatic differences in rainfall and climate. This is a critical area being defined and refined that needs active participation by all County Engineers.

¹⁵ Although the full definition of an "urbanized area" is complex, the Bureau of the Census general definition is "a land area comprising one or more places – central place(s) – and the adjacent densely settled surrounding area – urban fringe – that together have a residential population of at least 50,000 and an overall population density of at least 1,000 people per square mile."

4.D. FEDERAL FUNCTIONAL CLASSIFICATION

Each county is required to classify and designate a “primary road system” that follows the federal functional classification system. [RCW 36.86.070] The federal system creates a hierarchy of road functions based on the relative characteristics for providing mobility and/or access to land. Arterials provide the highest degree of mobility (higher speeds/reduced travel times) and very limited access to land; collectors generally provide equal emphasis upon mobility and land access; local access roads emphasize land access in lieu of mobility.

Proper functional classification of an agency’s roads is important to ensure that available funding is directed to meet the travel and access needs of the public as defined by the classification system, and to further guarantee that construction and reconstruction activities are done to the appropriate standards.

4.D.1. Relationship to Design Standards

The functional classification of a road has a direct effect on the applicable design standards that are used for both new construction and reconstruction. (See Section 5.C.4.) Because of speeds, travel times, and volume considerations, arterials typically have the highest road design standards. Local access roads are usually built to lower standards since the traffic speeds and volumes are much lower.

4.D.2. Relationship to the Statewide System

For other than local access roads, the federal functional classification designations are managed by WSDOT in conformance with federal standards. Each county is periodically provided current maps showing the federal functional classifications, based upon the official designations maintained by the WSDOT Planning & Public Transportation Office in Olympia. Specific guidelines and criteria for each of the arterial/collector classifications are published by WSDOT¹⁶. Changes in classification may be requested by local agencies based on changed conditions and are evaluated against the published criteria. There are federally-imposed percentage limitations on a statewide basis regulating the mileage in any particular non-local-access functional classification. Washington is very near or at these limits, which means that any increase of mileage in any particular functional class may require an equal reduction in another class. Although the limits are based on statewide totals, WSDOT’s current policy is to insist that such ‘offsets’ be within each agency’s road system. All agencies are encouraged to periodically evaluate their road and street systems to ensure their networks are properly classified.

4.D.3. Relationship to Federal Aid Eligibility

In addition to the federal functional classifications, there exists a concurrent Federal Aid System which – except for rural minor collectors which are not federal aid eligible – matches the arterial/collector system. In general, a road must be functionally classified as an arterial or collector to be included in the Federal Aid

¹⁶ *Guidelines for Amending Urban Boundaries, Functional Classification, and Federal Aid Systems*, WSDOT, August 1990.

System and thus be eligible for federal funds. (One notable exception is in the Federal Bridge Replacement program which currently requires that at least 15% of all the Bridge Replacement (BR) funds received by the State be spent on bridges off the Federal Aid System.) Other state construction grant programs such as the Urban Arterial Program, the Rural Arterial Program, and the County Arterial Preservation Program also are limited to the higher functional classifications.

4.E. PROJECT PROGRAMMING

Washington counties continue to experience a political and economic climate in which an effective process for identifying and prioritizing projects and allocating transportation resources is crucial. Rapid growth, limited funds, increasing competition for funding, and renewed public involvement make it increasingly important that this process be objective, systematic, and defensible.

4.E.1. Needs Identification

Identification of needs begins with an accurate inventory of transportation system components. Once an inventory is in hand, the condition and performance of the system can be determined using generally accepted methods. Various Management Systems are available for counties to use in evaluating both condition and performance. Systems of primary interest to counties include:

PAVEMENT MANAGEMENT

A pavement management system (PMS) is a systematic method used to manage the preservation, rehabilitation, and maintenance of paved road systems by analyzing pavement life cycles; to assess overall system performance and costs; and to determine the alternative strategies and costs necessary to prevent significant road deterioration. A key element of an effective PMS is its ability to provide pavement preservation alternatives based upon a predictive pavement deterioration model.

WAC 136-70 requires all counties to use a PMS to "guide the pavement preservation and rehabilitation activities on all county paved arterial roads". Counties must use a computer-based PMS that meets the requirements of WAC 136-70-040. The condition data obtained must be provided to CRAB, which has responsibility for maintaining the statewide pavement condition data file, organized by county. Use of a PMS is a Standard of Good Practice and is required to maintain eligibility for CAPP funds.

BRIDGE MANAGEMENT

Bridges of many kinds are an integral part of every county road system. The safety and adequacy of these bridges is of vital importance to the traveling public. A program of regular periodic inspection and reporting is necessary to fully inform each county legislative authority about the condition and adequacy of all bridges. WAC 136-20-020 requires that the county engineer "have available in his or her office a complete inventory of all bridges on the county road system". This data must be submitted to WSDOT for the State of Washington Inventory of Bridges and Structures (SWIBS). In addition, the county engineer is responsible for all routine and special inspections of all bridges on the county road system in

accordance with the National Bridge Inspection Standards (NBIS) as promulgated and periodically revised by WSDOT H&LP. Inspection information is to be forwarded to WSDOT annually.

As part of the Annual Certification process, WSDOT H&LP provides to CRAB a listing by county of all county bridges that have not had a regular inspection report submitted within the previous thirty months and/or a required special inspection report submitted within six months of the required inspection date.

SAFETY MANAGEMENT

A Safety Management System (SMS) is a systematic process for providing objective information that helps agencies identify and prioritize safety needs and choose cost-effective strategies to improve the safety of their transportation systems. The purpose of a SMS is to provide consistent and accurate information to decision-makers based on actual conditions.

In January 1998, WSDOT published a Local Agency Safety Management System guidebook for use by cities and counties. While the guidebook contains a lot of useful information, many smaller jurisdictions felt that it was too complex for them to easily implement. This has led to a renewed effort, in cooperation with the Washington Counties Risk Pool, to develop a basic SMS for counties to use. Once this effort has been satisfactorily completed and the basic SMS implemented by counties, you can expect to see a new Standard of Good Practice addressing the use of SMS in Washington.

MAINTENANCE MANAGEMENT

Very few jurisdictions currently use a formal maintenance management system (MMS). As funds become even more limited and as more emphasis is placed on maintaining the transportation systems that are already in place, this is likely to change. WAC 136-11, while not a Standard of Good Practice, encourages county engineers to apply basic management principles to road maintenance activities and to set forth specific goals and objectives relative to the results to be achieved. CRAB is working to finalize a program that will result in the future development of a Maintenance Management System for use by the counties as well as a corresponding Standard of Good Practice. (See Section 7.B.)

4.E.2. Priority Programming

Priority Programming is the development and application of techniques designed to rank any array of potential projects in order of importance to serve as a guide in assisting a county legislative authority in the formulation of road programs and the distribution of limited resources.

WAC 136-14-030 requires each County Engineer to “develop a priority programming process tailored to meet the overall roadway system development policy” determined by the county legislative authority. While each county may develop its own process, all processes must include consideration of the following:

1. Traffic volumes;
2. Roadway condition;
3. Geometrics;
4. Safety and accident history; and
5. Matters of significance local importance.

Each county must provide CRAB with a description of the priority programming process used by the county. CRAB will, upon request, provide assistance to counties in the development, evaluation, and/or modification of their priority programming processes. Each year, as part of the Annual Certification process, CRAB reviews each county's ordinance or resolution adopting the six-year transportation improvement program to confirm that the priority array was consulted during development of the program.

A successful priority programming process must be clearly defined and will be documented so that the general public and private investors can easily understand it. Public input and review should be encouraged, with the goal of obtaining public consensus on the priority array. In general, the process should include:

- Systematic identification, evaluation, and prioritization of problems;
- Broad review of recommended solutions; and
- Consistent incorporation of results into transportation programs and budgets.

4.E.3. Six-Year Transportation Improvement Program

For more than thirty years, cities and counties have been required to prepare, adopt, and submit 'long-range' advance road and bridge construction programs. For many years, these programs have been required to span a six-year period. Six-year programs must be adopted by the county legislative authority and a copy of the adopted program must be submitted to WSDOT, CRAB, and – for counties containing urban areas – to TIB. [RCW 36.81.121-122] The six-year program must be updated and adopted annually.

BASIC PROVISIONS AND CRAB AUTHORITY

At any time before adoption of the budget, the legislative authority of each county, with the advice and assistance of the county engineer and pursuant to one or more public hearings, shall adopt a comprehensive transportation program for the ensuing six years. The program must include all anticipated road and bridge construction, ferry system capital expenditures, paths and trails projects, and any other specified capital outlays. In addition, the program must contain "...information as to how a county will expend its moneys...for nonmotorized transportation purposes" [RCW 36.81.121(2)] as well as "...information as to how a county shall act to preserve railroad right-of-way in the event the railroad ceases to operate in the county's jurisdiction. [RCW 36.81.121(3)] Finally, the program must include an analysis of road fund revenues and expenditures for each year of the six-year program period. [WAC 136-15-030] The ordinance or resolution adopting the six-year transportation improvement program must contain references to the county's priority array [WAC 136-14] and the engineer's bridge

condition report [WAC 126-20]. The adopted program must be submitted to CRAB within thirty days of adoption.

TRANSPORTATION IMPROVEMENT BOARD REQUIREMENTS

If a county has an urban area, a separate section for long-range arterial construction plans is also to be included and submitted to TIB in conformance with their separate instructions.

4.E.4. Annual Construction Program

The annual road program requirement has been around at least as long as the six-year program requirement. The annual road program is typically the first year of the six-year program with additional specifics such as priority, work method (contract or day labor), and new equipment list. The annual road program must be adopted before the actual road budget is adopted.

BASIC PROVISIONS AND CRAB AUTHORITY

By the first Monday in October of each year, the county engineer shall submit a recommended overall road program to the legislative authority. The program must include recommendations for all road and bridge projects and all road equipment purchases for the ensuing year. For construction, a specific list of projects is required, along with cost and method information. [WAC 136-16-020] The recommended plan "... shall conform as nearly as practicable to the county's long-range road program". RCW 36.81.130 requires that the annual program also include the amounts to be expended for maintenance and special maintenance; however details of these proposed expenditures do not have to be included. The county legislative authority shall consider the plan and make revisions and changes until a majority is satisfied and the program is adopted. This adoption must be done before the road budget is adopted, or all budget appropriations are void. [RCW 36.81.130]

Requirements for the Annual Road Program and the Annual Construction Report are contained in WAC 136-16, which is a Standard of Good Practice. The primary purpose of this WAC is to enable CRAB to evaluate counties' compliance with the day labor laws. [RCW 36.77.065]

AMENDMENTS

From time to time, things change and it may become necessary to amend the annual construction program after its adoption. This can be accomplished, but it takes a unanimous vote of the legislative authority. [RCW 36.81.130] The Attorney General's opinion is that this refers to a unanimous vote of the members of the legislative authority who are present when the vote is taken. This clarification is included in WAC 136-16-042. A copy of any revision to the annual road program must be forwarded to CRAB within thirty days of its adoption.

RELATIONSHIP TO ACTUAL WORK

RCW 36.75.050 requires that each construction project initiated be approved by resolution of the county legislative authority. Typically these projects are known

as “CRPs” (County Road Projects) and each is uniquely labeled in accordance with the county’s own convention. In all cases, there should be a one-to-one correspondence between the authorizing CRP and the current annual construction program. If you find yourself in the position of requesting a CRP for a project not on the Annual Construction program, first do an amendment.

INCLUSION OF MISCELLANEOUS AND ALTERNATE PROJECTS

To allow flexibility, CRAB’s WAC rule provides for some variation to a specific project listing. Up to ten percent of the total construction cost may be contained in a lump sum entitled ‘Miscellaneous’ or ‘Unspecified’. Also, the program may include a section of ‘Alternate’ projects that may be advanced (by resolution) when specific projects are unavoidably delayed.

TIP AND STIP INCLUSION

With the passage of ISTEA and following federal transportation acts, the annual and six-year road programs take on an added value. All federal aid projects must be planned and included in a regional Transportation Improvement Program, and ultimately the State Transportation Improvement Program. Regional planning organizations work with the counties to select and include projects in their TIP for federal funding that are then forwarded for inclusion in the STIP. The plans should all coincide.

4.E.5. Capital Facilities Plans

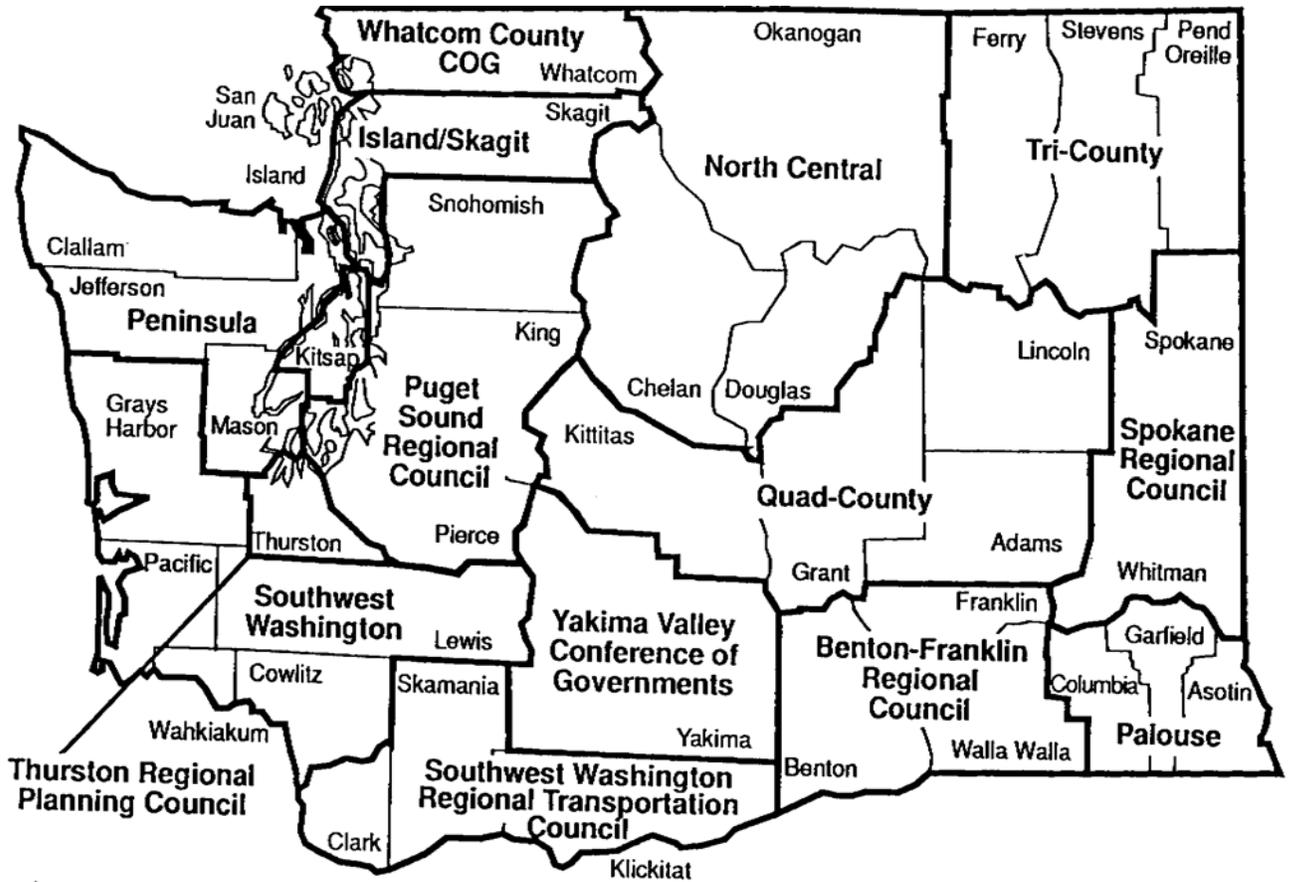
The Growth Management Act requires participating counties to prepare Capital Facilities Plan (CFP) to ensure that necessary infrastructure is available for planned growth. The CFP must include all county facilities (solid waste, parks, stormwater, sewer, water, buildings, roads, etc.) and consists of not only an inventory of capital facilities but also a forecast of future needs and at least a six-year financing plan. [RCW 36.70A.070] For transportation facilities, the CFP element is essentially an extension of the six-year program requirement.

4.F. PUBLIC INVOLVEMENT

Over the years, involving the public in plans, programs, and projects initiated by Public Works Departments has become commonplace. RCW 36.70A.140 emphasizes “early and continuous public involvement in the development and amendment of comprehensive land use plans and development regulations and implementing such plans”. This requires the county to adopt a written plan to inform the public on how and when they can participate in the development of the GMA plan.

Even if your county is not planning under GMA, public involvement has undoubtedly taken on increased importance in recent years. In the past, a legal notice in the newspaper of record was sufficient notice for a public hearing. The new standard is to seek out those stakeholders who have not traditionally been involved and invite them to participate.

REGIONAL TRANSPORTATION PLANNING ORGANIZATIONS



* Kitsap County is in both the Peninsula and Puget Sound Regional Councils.

Figure 4-1

5.A. OVERVIEW

Critical to the success of any County Engineer is the successful designing of projects for construction or maintenance. Inherent to this success is the blending of different skills and requirements into a successful project. A large county with a large staff and many projects can afford specialists in each of the various skills. In the smaller counties, a single staff person may be responsible for several very different skills. For a project to flow smoothly from inception, through permitting, right-of-way acquisition, design, and construction, the staff must work seamlessly and be efficiently workloaded. Consultant specialists may prove very beneficial as a cost-effective supplement to staff for some projects.

5.B. TRAFFIC ENGINEERING

One of the most visible responsibilities of the County Engineer is that of traffic engineering and all that entails. Whether or not a county has a designated Traffic Engineer, the ultimate responsibility for traffic engineering issues rests with the County Engineer.

5.B.1. Traffic Control

Traffic control issues are often a major responsibility of The County Engineer, especially if the county does not have a separately designated Traffic Engineer. RCW 47.36.060 states:

"Local authorities in their respective jurisdictions shall place and maintain such traffic devices upon public highways under their jurisdiction as are necessary to carry out the provisions of the law or local traffic ordinances or to regulate, warn, or guide traffic.

...The traffic devices, signs, signals, and markers shall comply with the uniform state standard for the manufacture, display, direction, and location thereof as designated by the department [Washington State Department of Transportation]."

As one might expect, the county engineer is typically the 'local authority' who actually deals with all traffic issues.

WASHINGTON MODEL TRAFFIC ORDINANCE

In 1975, in an attempt to "...encourage highway safety and uniform traffic laws", the Department of Licensing was authorized to adopt a comprehensive compilation of uniform traffic laws that could be adopted by local jurisdictions. Although RCW 46.90 is the enabling statute, the substance of the Washington Model Traffic Ordinance (MTO) is contained in the WAC. The MTO is comprised of WAC 308-330 and all of the state statutes that are adopted by reference in that chapter. New county engineers should immediately ascertain whether or not any or all parts of the MTO have been adopted by their county commissioners or councils.

One benefit of adopting the MTO is that it explicitly establishes the position of Traffic Engineer (and if you don't have one, then the county engineer is the traffic engineer) and spells out quite clearly what the duties are. The downside

to adopting the MTO, as indicated in RCW 46.90.010, is that any statutory changes automatically amend the MTO as well as your adoption thereof, so it becomes important that you track any changes so you know under which rules you are working.

The best source of answers to questions about the MTO is the Municipal Research and Services Center in Seattle.

THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

Traffic control devices are all signs, signals, markings, and devices placed on, over, or adjacent to a street or highway by authority of a public body or official having jurisdiction to regulate, warn, or guide traffic.¹⁷ The Manual on Uniform Traffic Control Devices (MUTCD) is a compilation of standards published by FHWA to ensure that "...basic uniformity will be obtained in the visible features and functioning of traffic control devices on all highways..." and that "Implementation of standards contained in [the] Manual on all highways open to public travel will be governed by Federal directive". RCW 47.36.020 codifies this requirement for jurisdictions in Washington state:

"The secretary of transportation shall adopt specifications for a uniform system of traffic control signals consistent with the provisions of this title for use upon public highways within this state. Such uniform system shall correlate with and so far as practicable conform to the system current as approved by the American Association of State Highway Officials and as set out in the manual of (sic) uniform traffic control devices for streets and highways."

The MUTCD is quite specific as to how the need for traffic control devices is determined and it includes specific instructions as to how devices are to be erected or installed. A major function of the county engineer (or traffic engineer) is to ensure that only those traffic control devices that are warranted are installed, that they are installed correctly, and that they are properly maintained. Failure to do this, and to maintain appropriate records of both installation and maintenance, can lead to expensive lawsuits.

SPEED LIMITS

RCW 46.61.400 sets the basic maximum speed on all county roads at 50 MPH. RCW 46.61.415 grants local agencies the authority to alter speed limits, within certain parameters and under certain conditions. For example, speed limits on county roads can never be increased above 60 MPH nor decreased below 20 MPH. This section should be read thoroughly.

It is also important to be aware of some basic traffic engineering realities when you consider requests for reducing speed limits. Free-flowing traffic will travel in a fairly narrow range of speeds regardless of the posted speed limit; even increased enforcement, unless it is around the clock, will not make a significant difference in how people drive. Any basic traffic engineering text will tell you

¹⁷ Introduction to the *Manual on Uniform Traffic Control Devices, 1988 Edition*.

that the posted speed limits should reflect the 85th percentile of the actual traffic flow. Limits much lower (or higher) will not have much of an effect.

RULES OF THE ROAD

The Washington state "Rules of the Road" are contained in RCW 46.61. In addition to the professional interaction that County Engineers have with these rules (see the speed limit discussion above), it is important to remember that you and all of your staff, especially those employees who operate heavy equipment as part of their road maintenance function, are highly visible to the motoring public and are expected to always follow all of the rules. It's never too soon to provide your employees with both the rules and your expectations to avoid problems.

5.B.2. Accidents and Accident Investigation

Certainly one of the driving forces behind a decision to make a road improvement is the presence of accidents. Most competitive grant programs have an 'accident' component to be considered in a project's position on a priority array, typically a compilation of attributable fatal, injury, and property damage accidents over some time period. Depending upon the nature of the grant program, this component may be the primary consideration or just a part of the whole. If for no other reason, it is important for county engineers to maintain comprehensive and detailed accident records and statistics for their roads.

A more important reason for excellent accident record-keeping is tort liability. Many counties have developed an accident review and investigation process for all serious injury and fatality accidents which, in addition to any State Patrol investigation, documents with appropriate notes, measurements, photographs, etc. all relevant and possible contributory issues such as weather, road surface condition, signs, vegetation, etc. Washington's laws regarding 'joint and several liability' mean that, if an accident victim brings suit, invariably the county will also be named. You will have to prepare exhibits, give depositions and testimony, etc. and undocumented memories will fade. Your risk manager will thank you for having good documentation.

PROCESSING OF ACCIDENT RECORDS

Since the passage of the National Highway Safety Act of 1966, all states, in cooperation with their local governments, collect, compile, and make reports of accident statistics to the National Highway Traffic Safety Administration (NHTSA). In Washington, the Washington State Patrol (WSP) is in charge of the central accident records center. The WSP receives accident reports from all local law enforcement agencies as well as from individual drivers. Periodically, accident reports on county roads are sent to each county by the WSP for location coding by road number and milepost. After such coding, they are returned to the WSP for inclusion in their central registry. Compilation of accurate accident records is an important function of the County Engineer. CRAB has adopted a Standard of Good Practice outlining the procedure to be used to ensure consistency. [WAC 136-28].

5.B.3. Railroad Grade Crossings

Railroad crossings, especially railroad-highway grade crossings, present their own hazards to the motoring public and, as such, the subject has its own chapter in state statute – RCW 81.53. The state agency with authority over all railroad-highway crossings is the Washington Utilities and Transportation Commission (WUTC). Among its duties are approving or disapproving grade crossings and any alterations to grade crossings, including closures. The WUTC maintains an inventory of all crossings outside of first class cities and has jurisdiction over inspection of both industrial crossings [RCW 81.54] and railroad equipment and property [RCW 81.44.065 and .070]. Maintenance of roadways crossing railroads and their approaches are the responsibility of the local jurisdiction [RCW 81.53.090]. The statute also includes provisions for allocating costs for construction or improvement of highway-railroad crossings [RCW 81.53.100-110].

Another statute addressing railroad crossings with which the County Engineer should be familiar is RCW 36.86.100, which outlines the responsibilities of both the railroad companies and the county legislative authorities regarding obstructions to crossings. Briefly, it is the county's responsibility to inspect and maintain all crossings to ensure motorists have an unobstructed view of an approaching train for a distance of at least one hundred feet in each direction. This section of the RCW also provides counties with the authority to install appropriate traffic control devices in conformance with the MUTCD.

5.C. DESIGN

Design of county road construction projects is usually done by county staff. There are times, however, when a consultant should be contracted to do the design, especially when certain design features require special expertise and will significantly impact project budgets and timelines. A county may also elect to use consultants when the county workload or lack of available staff makes it necessary. Regardless of who designs a project, the process will be similar.

5.C.1. Local Agency Guidelines

The Local Agency Guidelines (LAG) Manual is intended to provide assistance to local agencies as they plan, design, construct, and maintain transportation facilities using federal funds. The manual is published by WSDOT and approved by FHWA to provide local agencies with statewide policies and standards to follow when using Federal Highway Administration (FHWA) funds for transportation projects. Note that Chapter 42 in the State Design Standards that apply not only on federal aid projects, but under RCW 43.32.020 and 36.86.080, all of the county primary road system. The manual is not an exhaustive treatment for every design feature that will be encountered, but gives general guidance for roadway section requirements. Specific details for the design of many roadway features are contained in the WSDOT Design Manual. Content of and revisions to the LAG Manual are the purview of the LAG Committee, which is made up of WSDOT, county, and city personnel. CRAB also has a representative on the committee.

Although the design parameters for county roads and bridges primarily are derived from the AASHTO Policy on Geometric Design, the LAG Chapter 42 is the required quick reference for county projects.

5.C.2. Preliminary Design

During the Preliminary Design phase, the scope and budget of the project is defined. Potential funding sources are identified and a public involvement strategy is developed. The project is placed on the six-year road program.

PROJECT SCOPE

The county should provide all affected and interested parties (the stakeholders) with information about the proposed project, possible alternatives, and probable environmental impacts, as well as maps and a description of the scoping process. As the project continues with local support and as project funding sources are available, the engineer should conduct a scoping field review with personnel from the maintenance, bridge, finance, environmental, planning, traffic, and safety divisions so that all the deficiencies and potential corrective measures are addressed prior to design. This will prevent expensive add-ons and change orders after final design or during construction of the project. It will also afford the interdisciplinary team an opportunity to discuss funding.

Developing the scope of the project will determine the level of public support, which funding sources to pursue, what the design parameters will be, and whether design deviations are needed.

5.C.3. Final Design

After a project's location and design have been approved, work begins on the final version of its plans, specifications, and cost estimates (PS&E). These documents are used to award and administer a construction contract. See Chapter 44 of the LAG for further details. It is important to remember that FHWA will not approve a project's final design until environmental considerations have been approved and all public hearing requirements have been met. (See Chapter 43 of the LAG.) Remember also that SEPA has similar requirements for non-federal aid projects.

A project ultimately will fall into one of four categories:

1R: RESURFACING

A resurfacing project, often done by the county's maintenance department, involves applying a thin overlay or chip seal overlay to extend the life of the existing pavement structure. While surface condition is the primary issue brought dealt with, a few ancillary features, such as culvert cleanouts, ditch reshaping, and spot clearing may be included.

2R: RESURFACING AND RESTORATION

2R projects are primarily pavement preservation or overlay projects that address structural and surfacing deficiencies more intensively as indicated by a pavement management system. The focus of a 2R project should be to prevent more costly fixes that would occur if the pavement were allowed to deteriorate. Even though safety improvements are not the focus of a 2R project, critical safety and accident areas should be addressed through the accident history and State Patrol records. Some safety upgrades must be made as part of the project. The mandatory elements include upgrading and repair of bridge approach guardrail, removing unneeded guardrail, upgrading guardrail ends, upgrading signing and marking to MUTCD standards, and installing breakaway sign supports and luminaires. Other safety items that should be considered if warranted by accident records are:

- Adjustment of utilities to accomplish clear zone standard
- Beveling culvert ends
- Slope flattening
- Channelization and illumination
- Sight distance improvements

Refer to Chapters 41 and 42 of the LAG and WSDOT Design Manual 410, "Basic Design Level", for further details.

3R: RESURFACING, RESTORATION, AND REHABILITATION

Rehabilitation projects include resurfacing work and also restore all other deficient elements of the road to full design standards. These elements include clear zone, horizontal and vertical curves, width, side slopes, and safety. This type of project stays within the original alignment for 50% or more of the project length.

- Clear zone improvements – The project should establish a standard clear zone (see WSDOT Design Manual Chapter 700) and, therefore, the roadside area should be inventoried to document hazards that are present within the recommended clear zone. Some elements that must be improved are barrier end treatments, bridge approach guardrail, unbeveled or unprotected culvert ends, and non-breakaway sign and luminaire poles.
- Bridges – If bridges are located in the project limits, the engineer should address deck condition and guardrail. A determination of bridge deck protection, whether a membrane or other overlay type such as latex or epoxy, should be made. Standard bridge guardrail should be installed.
- Intersections – Intersections that meet warrants should be channelized, with turning radii designed to accommodate truck or bus needs. Sight distance should also be upgraded.
- Hydraulic design – A determination of the effect of the design flood on the roadway and the necessary protection should be determined, as should the effect of the roadway on the stream (upstream and downstream) and adjacent property. See WSDOT Design Manual Chapters 220 and 240 regarding hydraulic-related environmental permits that may be needed. Other drainage issues are discussed in Chapter 1210 of the WSDOT Design Manual.

- Pedestrian and bicycle access should be addressed.

Refer to Chapters 41 and 42 of the LAG and WSDOT Design Manual 430, "Modified Design Level", for further details.

4R: RECONSTRUCTION AND NEW CONSTRUCTION

Reconstruction projects are designed to full applicable standards based on the functional classification and design speed of the road. Projects that are constructed on new alignment, grade, or profile for 50% or more of the project length are considered reconstruction, as are major widening projects. The primary objective of this type of project as stated in the WSDOT Design Manual Chapter 440 is, "...to move the greatest number of vehicles at the highest allowable speed, and at the optimum safety". Therefore, projects are classified according to the following major design controls:

1. Federal Classification. The county road system is classified by a specific federal functional classification (See Section 4.D.) for which there are specific design standards as discussed in the LAG.
2. Terrain Classification. For purposes of design, the following classifications of terrain are used: (1) level to moderately rolling; (2) rolling – hills and foothills; and (3) mountainous – rugged foothills, high, steep drainage divides, and mountain ranges.
3. Environmental Classification. See WSDOT Design Manual chapter 220 and LAG Chapter 24.
4. Design Speed. Given the terrain classification and the ADT and DHV, this is the maximum speed that the road can be driven on when conditions are so good that the design features of the road are the only ones that control. The factors that determine design speed are functional classification, posted speed, terrain, traffic volumes, accident history, and access control.

Refer to Chapters 41 and 42 of the LAG and WSDOT Design Manual Chapter 440, "Full Design Level", as well as AASHTO's, "A Policy on Geometric Design of Highways and Streets", for further details.

5.C.4. Bridges

Federal bridge replacement (BR) funds are available for seismic retrofit, scour mitigation, painting, and rehabilitation as well as replacement. The bridge replacement program is administered by WSDOT H&LP. The basic eligibility requirements are:

- Bridge length must be 20 feet or greater, measured along the centerline of the roadway.
- The bridge must carry public vehicle, four-wheel traffic.
- All candidates except seismic retrofit projects must be structurally deficient (SD) or functionally obsolete (FO).
- The Sufficiency Rating (SR) must be less than 50 for replacement projects; and 80 or less for painting or scour mitigation.
- There is no limitation on SR and SD/FO for seismic retrofit projects, but the seismic retrofit work is limited to superstructure in-span bridges and joints at piers in Seismic Zones with acceleration coefficients greater than 0.10.

The Bridge Replacement Advisory Committee (BRAC) reviews applications for federal funding. Bridges that rank high enough to gain federal aid through the BRAC are subjected to alternatives reviews by WSDOT and the county to determine the best solution and accurate replacement costs. These reviews include:

- C3R: During this review, a determination is made whether to close, rehabilitate, replace, or repair the existing structure
- Type, Size, and Location (TS&L): For projects estimated to cost \$5,000,000 or more, or that face a unique site condition, FHWA may require the county to conduct a TS&L study to determine the overall dimensions of the bridge, the type of structure, and the optimum location
- Value Engineering: C3R review findings may lead to a recommendation for a value engineering study.

BRIDGE DESIGN PARAMETERS

Replacement bridges throughout the state must be designed using HS-25-44 loading if they are federally funded. If there are no federal funds involved, a county may use HS-20-44.

- Design Year: The bridge design year must be twenty years from the expected construction start date.
- Vertical clearances: The clearance over roadways must be sixteen and one-half feet.
- Railroad clearance: The clearance over railroads must be twenty-three and one-half feet.
- Curb to curb width: The minimum width for two-way structures is the design roadway width or the existing roadway width, whichever is greater.
- Length: Two factors may affect the length of a replacement bridge. (1) The bottom of the superstructure must be three feet above the 100-year flood. (2) The abutment and pier location(s) a new bridge generally reduces the existing backwater elevation. In fish-bearing waters, FHWA's acceptable rise in the backwater elevation is 0.2 feet above current conditions, as referenced in WAC 220-110-070(1)(h). For non-fish-bearing waters, the acceptable rise in the backwater elevation is one foot above current conditions.
- ADT is based on a traffic study projecting to 20 years.
- Type: The bridge type selected must be the most economical type based on sound engineering judgment and/or economics. Reducing the number of piers in the streambed and the impact of the abutments on the stream may also influence the selection of a bridge type.
- Foundation: The type and depth of the foundation elements depend on the results of the geotechnical and scour analysis.
- Aesthetics: WSDOT H&LP reviews bridge aesthetics on a case-by-case basis. The cost of aesthetics is compared to local agency standard practice statewide. BRAC funds will normally provide only aesthetic treatments presented in approved NEPA documents. Typically, paints or pigmented sealers and fractured fin finished on concrete structures will not be approved.

Refer to LAG chapter 34 for further details.

5.C.5. Design Standards

RCW 36.86 sets forth basic requirements for the development, adoption, and use of minimum construction standards for county roads and bridges [RCW 36.86.020] and requires them to be used for all new construction and, as far as practicable, for all reconstruction of roads comprising the county primary system. (See Section 4.D.)

In short, in addition to the statewide primary road standards each county must develop, adopt, and use design standards for all road and bridge construction and improvements.

STATE REQUIREMENTS

For those roads and bridges on the county primary system, the state has provided a process for setting statewide minimum standards. These statewide minimum standards are developed by the County Road Design Standards Committee [RCW 43.32], comprised of six county engineers appointed by WSAC and the WSDOT Assistant Secretary for H&LP. The committee must "from time to time...adopt uniform design standards for the county primary road systems". The most recent revision to these standards was adopted in September 2003 and is published by the WSDOT in LAG Chapter 42.

The minimum design standards for the county primary system are also directly applicable to all Federal Aid projects designed and constructed by the counties. They are enumerated in the LAG Manual. (See Section 5.C.1.)

DEVIATIONS FROM STANDARD DESIGN

Any arterial road project, as well as any federal aid or RATA-funded project that will not be constructed to the standards outlined in chapter 42 of the LAG Manual, must gain approval for the deviation from the Operations Engineer for H&LP before any funds are expended. The engineer must document the reasons for the deviation from standard road design prior to completion of the PS&E.

LOW VOLUME ROAD STANDARDS

The current AASHTO *Policy on Geometric Design for Highways and Streets* (Green Book) established minimum geometrics for new construction and major reconstruction of various road classifications, traffic volumes, and design speeds. Improvements to roads with 0-400 vehicles per day to meet the Green Book criteria may not be a cost-effective approach to achieve overall operational and safety improvements on a system wide basis.

Low volume roads and streets (less than 400 ADT) have separately developed standards, which are contained in Chapter 42 of the LAG Manual.

5.D. LAND DEVELOPMENT

One of the most contentious aspects of a County Engineer's job is working with the private development community whose primary objective is to sell lots and/or houses at as low a cost as possible and still maximizes profits. The county has various zoning and planning requirements with the objective of providing a livable community and the Engineer sets standards for Board approval for road design and construction and often stormwater and drainage. These standards will sometimes reflect County road Standards with an expectation that, at some future point, some roads will become a part of the County Road System. Often these standards are higher than the developer desires and friction occurs.

It is imperative that the Engineer and the Board communicate on standards to be set for development. The standards are recommended by the Engineer, but they are adopted as a standard by the Board. Often the standards call for one standard for a single house or even several houses, and a higher standard for increasing density of housing. Who is responsible for upgrading an existing road to a higher standard? What is the policy for use of unopened county right-of-way? What is the policy for access to a county road? These and many other questions need to be set in policy by the Board before problems occur and to give the engineer clear guidance.

The actual review of proposed plats is a unity of effort between the county planners, the engineering staff, and, in many counties, the hearings examiner.

5.D.1. Authority

The statutory authority for the platting and subdivision process, including short plats, is contained in RCW 58.17 "Plats – Subdivisions – Dedications. It is important to be aware of two specific provisions of RCW 58.17:

RCW 58.17.150: "Each preliminary plat submitted for final approval of the legislative body shall be accompanied by the following agencies' recommendations for approval or disapproval:...(3) City, town, or county engineer."

RCW 58.17.160: "Each and every plat, or replat, of any property filed for record shall: (1) Contain a statement of approval from the city, town, or county licensed road engineer...as to the layout of streets, alleys, and other rights of way, design of bridges, sewage and water systems, and other structures..."

Other statutes that the county engineer also should be familiar with include, 58.04 "Boundaries", 58.08 "Plats – Recording", 58.09 "Surveys – Recording", and 58.18 "Assessor's Plats".

5.D.2. Process Management

The overall platting process is full of procedural steps, most of which are directed by the county planner and the county planning commission. As there are numerous specific time-dependent steps, the county engineer must be cognizant of his/her responsibilities to act in a timely manner. A matrix of plats versus

actions is useful to help monitor these responsibilities. It is also an excellent idea to form a cooperative relationship with the county planner and health department, since each has specific duties.

As part of the approval process, the county legislative authority is responsible for insuring that the public use and interest is served by the proposed plat, and must make appropriate written findings. The county engineer may be assigned a wide variety of technical responsibilities in formulating these findings. At the least he/she will be looking at issues relating to streets and roads and likely the sidewalks and walkways used by school children.

5.D.3. Establishment of Roads Within Plats

Plats may include a "dedication to the public" for all of the road system. [RCW 58.17.165] This means that, should they be accepted as such, upon final approval by your legislative authority, all such roads automatically become part of the county road system and must be maintained (and periodically reconstructed) from then on. Some plats do not have such a dedication and the roads within are private roads. This does not mean that you will never have to be concerned. It is not unusual for plat residents, after experiencing a few years of trying to maintain their private roads, to turn to the county and request, often quite vociferously, that the roads be established as county roads. It is helpful, on these occasions, to have a requirement in the design standards or in the county code that a private road must be brought up to public road standards before the county will accept it into its road system.

5.D.4. Design Standards

In addition to the required design standards for the county primary road system, it is important for counties to develop standards for roads that are not part of the county primary system. Although there is no specific statutory language requiring local standards, it would be impossible to evaluate land development issues without them. The county engineer should review the plat road standards from time to time to insure that they are appropriate. The engineer must be familiar with statewide new construction and arterial standards as established by the State Design Standards Committee [RCW 43.32] as well as the road and bridge standards contained in RCW 36.86. As new plats may contain or be adjacent to existing arterials, these construction standards, and right-of-way dedications, etc. should be taken into account.

Consideration should be given to establishing standards for not only public roads but also private roads. Although the county is not responsible for maintaining private roads, issues such as adequate emergency vehicle access should be addressed even for private roads.

5.D.5. The Engineer's Role

Depending upon assigned responsibilities, the county engineer will approve, at a minimum, the road locations, design, and construction. If the road or street is to become a county road, future maintenance will be the responsibility of the county, as will any liability issues arising therefrom. Even if it will be a private

road, there is still a responsibility to protect the taxpayer and insure that the road is inherently safe. However, with private roads, future maintenance is not explicitly a county concern – at least not at the time of plat recording.

It is critical to be consistent in conversations with developers and their engineers. Upon initial submittal of a proposed plat, preliminary recommendations must be made upon which the developer will rely in the design of the roads, drainage systems, and other necessary infrastructure. Discovering new information later and requiring the developer to change his design late in the process can very easily be the cause of a large controversy! A good set of road standards (for both design and construction) for new development that has been approved by the County Legislative Authority will go a long way to insure that consistent, timely comments are made.

At the first meeting with the developer (frequently a joint meeting with representatives from planning and other affected departments), explain all the requirements and standards that are expected to be met and emphasize that the developer's engineer must design to these standards. In the more urban counties, other, even more contentious, requirements such as traffic studies and traffic mitigation may be involved. Upon receipt of drawings, check out the site! Frequently the drawings do not adequately describe the situation and may even be misleading. Be sure to check out downstream drainage concerns. Is the access point onto the existing county road adequate for sight distance or will it create a safety problem? Do the evaluation as soon as possible, inform the developer in writing, and be consistent!

Finally, be sure that the roads and other appurtenances are constructed to the approved design. Since in most cases the road will become a county road, allowing variances in the design to be built will likely cause long term maintenance problems.

5.D.6. Construction of Plat Improvements

Normally, all required improvements in a plat are completed prior to final approval and recording of the plat. RCW 58.17.130 requires that the county ordinance include a bonding provision as an alternate to completion of construction. Furthermore, there can be provisions for an up to two-year "successful operation after construction" bond (maintenance bond) as well. The administration of these provisions, as well as approval after the work is done, will likely be the responsibility of the county engineer.

5.D.7. Unopened County Right-of-Way

Often a single lot will be developed that does not require submittal of a plat or short plat but that does require provision of some type of access. The logical – and sometimes only – access may be over a previously unopened county right-of-way. In these cases, it is wise for the county to have an established process for allowing private use to be made of what is actually public right-of-way.

Some counties have developed procedures for issuing “trail permits” to allow one or two lots to use unopened right-of-way for private access without building the road to full public standards. The issuance of a permit allows the county to set minimum construction standards and to specify who is responsible for maintenance. County standards also should include limitations on how many individual lots can use the access before the road must be constructed to standard and opened to the public and how costs of upgrading the road are to be apportioned.

5.D.8. Impact Mitigation

The acquisition, construction, and improvement of roads to serve new developments is a major burden upon county government, especially in counties experiencing rapid, large-scale increases in the intensity of land use and in population growth. This rapid growth creates large “front-end” demands for county services, including roads, and causes increased road usage. Existing and projected county funds are usually not adequate to meet the public’s projected road needs. Therefore, it is common for counties to require that developers mitigate the impacts of their developments.

When people think of “impact mitigation”, they usually think of impact fees; but there are other ways to mitigate the impacts of new development. Two examples are construction of frontage improvements and dedication of additional right-of-way. RCW 58.17.110 states, “Dedication of land to any public body, provision of public improvements to serve the subdivision, and/or impact fees imposed under RCW 82.02.050 through 82.02.090 may be required as a condition of subdivision approval.” This is tempered with the caution that, “No dedication, provision of public improvements, or impact fees ... shall be allowed that constitutes an unconstitutional taking of private property”.

If a county desires to require impact mitigation for new development, it is advised to set out in County Code what will be required of developments and to establish a uniform method of treatment for similar development impact on the county road system. The goal is to ensure that public health, safety, and welfare will be preserved by having safe and efficient roads serving new and existing developments by requiring all development to mitigate traffic impacts. This mitigation could include a proportionate share payment reasonably related to the traffic impact of the proposed development, construction of road improvements, and/or dedication of right-of-way reasonably necessary as a result of the direct traffic impact of the proposed development.

IMPACT FEES

RCW 82.02.090(3) defines “Impact Fee” as

“...a payment of money imposed upon development as a condition of development approval to pay for public facilities needed to serve new growth and development, and that is reasonably related to the new development that creates additional demand and need for public facilities, that is a proportionate share of the cost of the public facilities, and that is used for facilities that

reasonably benefit the new development. 'Impact fee' does not include a reasonable permit or application fee."

Counties desiring to institute traffic impact mitigation requirements, especially impact fees, must be thoroughly familiar with the provisions of RCW 82.02.020, RCW 82.02.050 through 82.02.100, and RCW 43.21C (SEPA).

5.E. SURVEY AND GEOGRAPHIC INFORMATION SYSTEMS

These are two disciplines that can work closely together or be totally separated, depending on the county. Survey is a necessity. As a minimum, every road department needs a qualified survey crew to lay out the boundaries of county rights-of-way, to locate various aspects of road and bridge projects, and to gather preliminary engineering information for future projects. Many counties are taking advantage of the advances in Global Positioning Systems (GPS) technology. GPS can be used for "approximate" locations of field installations such as culverts or other elevations especially needed for stormwater considerations, the approximate location of signs and a multitude of other timesaving bits of information. GPS itself is accurate to within inches and critical sites need to be surveyed for exactness.

The use of GPS leads naturally to the use of Geographical Information Systems (GIS), which is basically putting all the located data on computer-based maps that can be overlaid portraying a wealth of information. GIS has become very valuable in growth management planning, providing easy to understand graphics for comprehensive plans and subsequent public meetings. For roads, this can be a powerful method of tracking the road base map, accident sites, maintenance problems, stormwater effects, right-of-way, etc. The initial use in many counties is for the Assessor to track parcels for tax purposes and often the Engineer and the Assessor struggle over control of the system and, more importantly, the accuracy of the base maps. The GIS function can be located in Public Works, Planning, the Assessor's Office, or even be its own department. In any case, if the system is available, the Road Department MUST make maximum use of it.

5.F. RIGHT-OF-WAY ISSUES

5.F.1. Authority and Responsibility

The issue of roads and their rights-of-way fall under the authority of the county legislative authority, which is, in most cases, the Board of County Commissioners [RCW 36.32.120(2)]. This authority is further amplified in RCW 36.75.040(3), which states:

*"The board of county commissioners of each county, in relation to roads and bridges, shall have the power and it shall be its duty to:
... (3) Acquire land for county road purposes by purchase, gift, or condemnation, and exercise the right of eminent domain as by law provides for the taking of land for public use by counties of this state..."*

The county legislative authority acts through the county engineer regarding road (and bridge) matters. The statutes clearly delineate this relationship in RCW 36.80.030, Duties of the engineer:

"The county road engineer ... shall have supervision, under the direction of the board, of establishing, laying out, constructing, altering, improving, repairing, [and] maintaining all county roads of the county."

As can be seen, the ultimate authority for right-of-way as well as all other road matters lies with the county legislative authority, and the county engineer is its agent in these matters. In practice, even if the authority-responsibility relationship is not clearly articulated, the county engineer does all the work necessary for preparing materials and instruments for the legislative authority's official action.

5.F.2. Establishment

County roads are created or otherwise come into being by various processes - formal establishment, turnbacks from WSDOT, jurisdictional transfers by the State, inclusion in an approved plat, occasionally by default over time, and by the rare disincorporation of a city [RCW 35.07.110]. Platting and formal establishment are the two most common methods of creating new county roads. Discussion of the establishment of roads within plats is included in Section 5.D.3.

RCW 36.81 contains the statutory processes by which roads may be established by initiative of the county legislative authority or by petition. The process as described in statute is quite straightforward but there are a few 'twists' that must be carefully considered.

At this time, most counties go through this process as the result of a petition to put a private road on the county system in order to transfer maintenance responsibilities to the county. What most petitioners fail to realize is that they are obligated to bring the road up to county design standards before the county assumes responsibility. Frequently the upgrading cost is, to the petitioners, extraordinarily high and the establishment process ends. There are also frequent disputes as to the amount of right-of-way required as current law sets forth a minimum (unless a different width is specifically designated by the legislative authority) of 60 feet [RCW 36.86.010]. Occasionally a county will be sufficiently pressured to accept a substandard road into the county road system without requiring upgrading or even sufficient right-of-way deeds or waivers to accommodate a future upgrading. The result is an inadequate, substandard road which is excessively costly to maintain, is unable to be improved to current design standards, and awaits its turn as an 'unsafe' road lawsuit based on poor geometrics.

The key role played by the County Engineer is the preparation and presentation of the "Engineer's Report" [RCW 36.81.050]. This report serves as the technical basis for all establishment actions and must be done both professionally and thoroughly. One of the important elements in this report is the recommendation regarding necessary right-of-way width(s).

5.F.3. Acquisition by Instrument of Conveyance

RCW 36.85 provides the basic authority for counties to acquire right-of-way for a variety of road and road-related uses "... by gift, purchase, or condemnation."

[RCW 36.85.010] In the case of purchasing, this is typically done via a right-of-way waiver or deed. Such a document is often referred to as an "instrument of conveyance".

There has been a continuing controversy regarding the county 'rights' actually being conveyed by such waiver or deed. Does acquisition for road purposes by deed convey an ownership in fee simple of the land? Various court cases, including cases decided by the Washington State Supreme Court, have clearly established that rights-of-way acquired by right-of-way deeds, dedication deeds, or quitclaim deeds, all without compensation, for road (or any other public) purposes are only easements and do not convey title. The ownership in fee of such easements resides with the abutting owner, as do any timber rights, mineral rights, etc.

The exception to this 'easement only' rule is for cases in which compensation is made (often as a result of 'fair value' negotiations or condemnations) or where the language of the instrument clearly conveys the same rights as an individual holding fee simple title (as with a Statutory Warranty Deed). In such cases, and where the "public body paid valuable consideration and obtained the fee in the property", there is the traditional ownership with all rights and responsibilities.

The distinction can become important should a road be vacated, as there is no automatic return of the use of any 'fee simple' land held by the county as there is for easements. As long as the right-of-way remains necessary for 'road purposes', there is little difference in the two types of possession. Only at the time that the 'possession' is disposed of does the distinction become important.

In summary, it appears that the instrument of conveyance, the language contained therein, and the consideration paid are critical in determining if you possess merely an easement or fee title.

An interesting recent turn of events has resulted in a ruling that requires that all waivers, deeds, etc. for county roads must be recorded in the county auditor's office. RCW 36.22.010 states that "the county auditor (1) shall be recorder of deeds and other instruments in writing which by law are to be filed and recorded in and for the county for which he or she is elected". Historically, many counties have relied on the 'office of record' language for the county engineer's office [RCW 36.80.040] as being sufficient for such instruments of conveyance. Those counties that have not recorded all of their right-of-way deed through the auditor's office should plan to do so ASAP.

5.F.4. Prescriptive Rights

A prescriptive right-of-way is one acquired by usage as a public traveled way without benefit of a recorded easement or other conveyance. This commonly occurs in counties that have territorial roads that predate the county road system. These roads became the original road system and many of them did not come with any dedicated right-of-way of record. Other situations by which this occurs are defined by two statutes, which define as public roads any road that has been maintained by the county for seven years or more [RCW 36.75.070] or that has been used as a public highway for ten years or more [RCW 36.75.080]. From time

to time, the county engineer will find him/herself embroiled in this issue from one side or the other. There is extensive case law here and anyone attempting to use these statutes must consult with their prosecuting attorney before taking action.

A closely related issue involves the determination of the right-of-way width that can be claimed by a county. This issue, too, has been to court numerous times with the basic conclusion that, in the absence of any other information, the width of a prescriptive right-of-way is that width which has been "used and maintained" by the county. In this situation, proof of maintenance (i.e., used and maintained) can be very litigious and good record keeping of all maintenance activities is a must.

SOME GUIDANCE AS TO THE DETERMINATION OF RIGHT-OF-WAY WIDTH

Should you be confronted with the question of determining the operative right-of-way of a county road, remember to consider the following:

The historical evolution of permissible county road right-of-way widths dates back to Territorial Law. In Sec 7, Act of Jan 11, 1859, "County roads shall be 60 feet in width unless the county commissioners shall, upon prayer of the petitioners for same, determine a less number of feet in point of width." With statehood, the 1881 Legislature continued the 1859 Territorial Law definition. In 1890 (Chapter 19, Section 1, Laws of 1890) the Legislature changed the definition to provide that county roads should be established as being not less than thirty feet nor more than sixty feet in width. This was further modified in 1925 (Chapter 173, Section 3, Laws of 1925, Ex. Sess.) to designate a width of not less than 30 feet nor more than 120 feet. The last change (Chapter 187, Sections 14 and 17, Laws of 1937) set county road rights-of-way "... as being 60 feet in extremities and 30 feet on each side of the centerline of the road, unless the commissioners elect a different width."

The steps that should be followed in determining right-of-way width are:

1. A search for deeds, waivers, condemnation actions or other acquisition instruments;
2. If no acquisition instrument exists, a search should be made of the county commissioner records to determine whether or not the road in question was established pursuant to petitions and a county commissioners' order. If such an order is found, the width set out in the order or the petition, if followed by the proper period of public usage, will establish the road to that width (presuming that the commissioners selected a width within the limits allowed by law at that time.)
3. If there is neither a deed nor an order establishing the road, inquiry will have to be made of the 'old timers' in the neighborhood of the road to determine approximately when the road was opened and whether or not it has been used by the public for the required uninterrupted period. If this period is less than ten years, check the historical maintenance records to see if the county has been maintaining the road so that the shorter seven-year statute might apply. When the dates of such period are established, the minimum width that can be claimed can be determined from the applicable statute in effect at the time. In no case would the claimed width

be less than the width of the traveled way plus the maintained ditches and slopes.

4. If none of the above can be determined, the right-of-way width is usually the width of the maintained land or the traveled way. Without evidence indicating a greater right-of-way width, the minimum amount that is needed for maintenance is all that can be claimed.

5.F.5. Vacations

The process of vacating a county road (or a portion of a county road) is basically the reverse of establishing one. The key issue is identified in RCW 36.87.010, which states that "When a county road or any part thereof is considered useless...", it may be vacated. A successful action to vacate will require that the legislative authority reach a finding that the road is useless and that the public will be benefited by its vacation and abandonment. The basic processes, including some important exceptions and compensation issues, are contained in RCW 36.87.

As with road establishments, the County Engineer is responsible for preparing and presenting an Engineer's Report regarding the vacation. The report must include all of the items listed in RCW 36.87.040, one of which is the cost of vacating the road. One of the primary issues that must be resolved when a road is vacated is that of access to properties. As long as a road provides either the sole or the most reasonable access to a parcel, the road can rarely be considered "useless" and pursuing a vacation is probably not in the best interests of the county. There is also no way that the county can vacate a road and at the same time preserve a private right of access to anyone. If the road subject to the vacation request contains public utilities, the legislative authority may approve the vacation subject to the retention of an easement for public utilities and services. The easement is retained by the county and cannot be conveyed to another entity including a public utility purveyor; therefore, a permit or franchise must be granted to the utility in question. [RCW 36.87.140] It is also important to note that roads abutting 'bodies of water' cannot be vacated, except in very rare circumstances that are discussed in RCW 36.87.130.

5.F.6. Utility Franchises

State statutes allow for multiple uses of county road right-of-way. Such use by others is regulated by the franchise process set forth in RCW 36.55. All pipe line and wire line providers are required by RCW 36.55.010 to have a franchise to use county right-of-way. Telecommunications providers are the single exception to this requirement as they are separately authorized to use road right-of-way by RCW 80.36.040. Cattleguards and railway roads using or crossing county road right-of-way are also subject to franchise requirements.

Franchise holders are required, by RCW 36.55.050, to place utilities and other appurtenances "in such location on or along the county road...(that) will cause the least interference with other uses of the road. In addition, RCW 36.55.060 places limitations on the granting of franchises:

1. The franchise holder is liable to the county for all necessary expense incurred in restoring the county road to a suitable condition for travel.
2. No franchise shall be granted for a period of longer than fifty years.
3. No exclusive franchise shall be granted.
4. The franchise holder shall remove or relocate its facilities, at its own expense, if such removal is reasonably necessary for reconstruction, alteration, or improvement of the county road.

It is important for each county to use a consistent permit and oversight process for all franchises. In recognition of the importance of this issue, CRAB has adopted a Standard of Good Practice (WAC 136-40) that requires each county to adopt a policy for accommodating utilities within county right-of-way. A model utility accommodation policy has been developed that may be adapted to an individual county's needs.

5.F.7. Right-of-Way Use Permits

RCW 36.75.040(4) gives the county legislative authority, in relation to roads and bridges, the power to "(p)erform all acts necessary and proper for the administration of the county roads..." One of the "acts" necessary for administration of county roads is the issuance of permits to individuals or entities desiring to make use of county right-of-way. RCW 36.75.130 specifically addresses the issue of road approaches, stating that "(n)o person shall be permitted to build or construct any approach to any county road without first obtaining permission therefore from the board."

In addition, there are numerous other uses of the right-of-way that should be subject to the issuance of permits. These uses can be grouped into the following general categories:

1. Special Events (Permits are often issued by departments other than Public Works.)
2. Short-term uses of the right-of-way (Movement of vehicles, materials, and structures; commercial hauling; road closures and other uses that have the potential to disturb existing features, improvements, other vehicles, or pedestrians within the right-of-way.)
3. Long-term uses of the right-of-way (Placement and use of objects or features or non-land-development related construction, with minor or no disturbance of improvements within the right-of-way.)
4. Construction Activities (Activities that disturb the roadway and other features within the right-of-way.)

It is in the best interest of the county to have a section of the County Code that addresses Right-of-Way Use Permits and the consistent process for reviewing and issuing them. The following items should be considered in developing such a code section:

1. Types of right-of-way uses that require permits;
2. The requirements for permit approval;
3. Duration of permit and conditions for renewal;

4. Permit exemptions;
5. Insurance requirements;
6. Hold harmless and indemnification;
7. Performance security;
8. Maintenance security;
9. Inspections;
10. Permit revocation; and
11. Permit application and processing fees.

From time to time, county engineers may be confronted with non-franchised and non-permitted right-of-way encroachments such as structures, fences, gates, etc. which materially impair the use of the road as a public thoroughfare. These encroachments can be removed by the county as a public nuisance under RCW 9.66.

5.F.8. Turnbacks and Jurisdiction Transfers

TURNBACKS

Occasionally, realignments and new construction of state highways will result in a portion of the original state highway being no longer in service as a state highway. These portions may unilaterally be transferred to the county and become a county road [RCW 36.75.090]. The WSDOT has agreed, however, that maintenance deficiencies will be corrected prior to such transfers. County engineers should be prepared to work closely with their WSDOT Regional staff to mutually identify maintenance as well as other problems for which corrective action should be taken.

JURISDICTION TRANSFERS

In 1990, the Legislature added RCW 47.17.001 to define the nature and characteristics of the state highway system as a basis for analyzing whether changes, additions, or deletions should be made. Although the Legislature is responsible for actually making such changes, the responsibility for analysis and recommendations to the Legislature, in accordance with the statutory criteria, has been vested in the Transportation Improvement Board (TIB) [RCW 47.26.167]. The current criteria and procedures used by TIB in analyzing proposed jurisdiction transfers are included in WAC 479-210.

6.A. OVERVIEW

County Public Works Departments may administer Federal Aid funded construction projects only if they are certified (see discussion below) by the WSDOT to do so. The procedures for contract administration, construction inspection, materials testing, and documentation such as Inspector's Daily Reports and changes in the work to be done are detailed in the WSDOT Construction Manual. Details on owner/contractor responsibilities in administering the contract are contained in the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

6.B. CERTIFICATION ACCEPTANCE

Certification Acceptance is WSDOT program under which certain authorities and responsibilities in federal aid project development and construction that are normally retained by the state are delegated to local agencies. See the WSDOT Local Agency Guidelines for more information.

The requirements for Certification Acceptance are:

1. Projects must be administered in accordance with the LAG Manual.
2. Projects must be administered by a Professional Civil Engineer registered in the State of Washington who is either on staff as a public employee or is a contract employee designated as the agency's Engineer.
3. The agency shall have sufficient expertise and capability to perform and supervise the design, PS&E, and construction administration phases of the project.
4. The local agency must have designated an official approving authority for all WSDOT-delegated project approvals. This authority (agency executive or policy body) must officially approve each project step for which it is the approving authority, as identified in the agreement with WSDOT.

Currently, all counties are operating under Certification Acceptance granted by WSDOT and are considered fully capable of administering their own construction contracts. Chapter 13 of the LAG Manual contains a full description of the certification process and the various stages of certification.

6.C. PROJECT MANAGEMENT

6.C.1. County Road Projects

RCW 36.75.050 requires that all County Road Projects (CRPs) be established by resolution of the county's legislative authority.

"The board shall by resolution, and not otherwise, order the survey, establishment, construction, alteration, or improvement of county roads..."

The resolution authorizes the county engineer to expend funds and to proceed with construction projects as listed on the Annual Road Program. This may be done for individual projects or for groups of projects. It may also be done by project phase (Preliminary Engineering, Right-of-Way acquisition, Construction), especially if the

estimated cost of the project is to be more specifically defined at later project stages and if the project will take more than one year to advance to actual construction.

At a minimum, a CRP resolution should contain the following items:

1. A unique CRP number that serves as the permanent filing reference designation;
2. A brief description of the project including the road name, county roadlog number, and beginning and ending mileposts (a vicinity map is also useful);
3. The reference to the Annual Construction Program initially authorizing the project (or the project phase, if appropriate);
4. If the authorization includes construction, a notation as to whether it will be by day labor or by contract (if a mixture, specify the nature and the estimated costs of both the day labor and contract construction portions); and
5. The estimated total cost of the project by phase.

For all projects that are proposed to be done in their entirety or in part by day labor (county forces), additional guidance and specifics are found in WAC 136-18.

See RCW 36.77.070 and WAC 136-18 for public notice requirements.

6.C.2. Contract and Day Labor Limits

Over the years the road construction industry and the counties have discussed the issue of how much road work should be done by contract and how much can be done with the counties' own forces (i.e., day labor). The current compromise dates back to 1980. RCW 36.77.065 sets forth the limits on allowable day labor, which are based on the size of a county's annual road construction budget. The amount of construction done by day labor historically has been the area in which most of the failures to meet CRAB's "Standards of Good Practice" occur.

COMPUTATION OF DAY LABOR LIMITS

The road construction element can be done either by contract or by day labor. The law does, however, place limitations on how much can be done by day labor. The amounts and how they are calculated are contained in RCW 36.77.065 "Day labor construction projects or programs -- "County road construction budget" defined -- Amounts -- Violations" (see also WAC 136-16-022). Note that the determination of compliance takes place both at the initial budget stage as well as the actual expenditure stage and there is a special \$10,000 limit on day labor for electrical work (RCW 36.77.065 (3)).

CRAB'S RESPONSIBILITY

The entire day labor issue is closely monitored and evaluated by CRAB. The implementing regulation, WAC 136-16 "Annual Road Program, Construction Report, and Day Labor Limits", which is a Standard of Good Practice, requires that both an annual road program and an annual construction report be submitted to CRAB. Determination of compliance with statutory day labor limits is based upon both of these reports for any one calendar year. In recent times, virtually all situations in

which a county is at risk of not receiving its 'Annual Certification' (see WAC 136-4, "Annual Certification of Good Practice") and thus putting its gas tax revenue at risk have stemmed from use of day labor.

MAINTENANCE VS. CONSTRUCTION

Questions and concerns over 'maintenance versus construction' continue to be of interest to counties, primarily because of the 'day labor versus contract construction' implications. At the root of the issue is agreement as to which is which - there are 'gray areas'. This difference is important because virtually all administrative activities, from priority programming through budgeting and ending with accounting and reporting to the State Auditor's Office, treat these two work types differently. Some of the differences are philosophical and procedural ... but many are statutory.

Definitions: In 2002, with the deadline for complying with GASB 34 approaching (see Section 3.E.), it became necessary – at least for financial reporting purposes – to establish clear definitions for maintenance, preservation, and construction of infrastructure, including roads and bridges. Previously, the BARS manual (see Section 3.C.3.) included brief definitions of maintenance and construction and references to "complete" definitions in the Local Agency Guidelines (LAG Manual).

The LAG definitions are:

Maintenance - *"Work directed toward preservation of the existing roadway and related appurtenances as necessary for safe and efficient operation. Any surface treatments less than 0.06 foot thick, crack sealing, etc. are considered to be maintenance and are not 3-R activities."*

Construction - *"The building of a street, a portion of a street or a facility that did not previously exist. It may be on a new right-of-way or on existing right-of-way."*

New Construction - *"The building of a new roadway or structure on substantially new alignment, or the upgrading of an existing roadway or structure by the addition of one or more lanes. If 50 percent or more of the project length involves vertical or horizontal alignment changes, the project is new construction. The following types of projects are not classed as new construction and the 3-R standards apply:*

** Modernization of an existing street or road by resurfacing, widening lanes, adding shoulders, or adding turn lanes at intersections.*

** Temporary replacement of a street or roadway, immediately after the occurrence of a natural disaster or catastrophic failure, to restore the facility for the health, welfare, and safety of the public."*

The 2002 BARS Manual includes the following definitions:

Maintenance includes *"...those activities that ensure that the right-of-way and each type of roadway, roadway structure, and facilities remain, as nearly as is practical, in its original, as-constructed condition or its*

subsequently improved condition, and the operation of roadway facilities and services to provide satisfactory and safe motor vehicle transportation."

Preservation includes "...those specialized maintenance activities that serve to extend the originally estimated life of each type of roadway, roadway structure and facility but do not increase its traffic flow capacity or efficiency."

Construction includes "...those activities involved in the building of a new road facility or improvement of an existing facility to a higher geometric or structural standard, or undertaking activities that increase the traffic flow capacity or efficiency of an existing facility."

The specific activities that comprise 'preservation' and 'maintenance' must be determined by each jurisdiction. Varying climates, soils, and other conditions mean that these will likely vary across the state.

Implications: So why should there be any big deal? The 'biggest deal' relates to 'how' the work is actually done. The considerations are in three parts:

- **Design Standards** – RCW 36.86.080 requires all new construction and, to the extent feasible, all reconstruction of county arterials to be done to uniform design standards. (See Section 5.C.5.) These arterial new construction design standards are developed and adopted statewide by a formal design standards committee as specified in RCW 43.32. There are also statutory requirements for all counties to develop and adopt design standards for all road and bridge construction and improvement [RCW 36.86.020-030]. Thus, work defined as construction must meet (or have a deviation from) specific design standards.
- **PS&E** – RCW 36.77.010 clearly requires the preparation of "... maps, plans, and specifications as shall be necessary and sufficient." Furthermore, they must be approved by the county legislative authority and filed with its clerk. The decision of 'necessary and sufficient' is your professional call, but there something must be evaluated and approved.
- **Day Labor** – As previously discussed, the amount of construction that can be done by county forces is limited by a formula related to the total construction program. The more projects that are classified as construction, the more you can do with day labor. The current trend in many counties is to do more and more work by contract, so for many counties, this is not an issue.

6.C.3. Prevailing Wages

Since 1945, the concept of cities and counties paying "prevailing wages" to all contractors' workers on public works contracts has been a State policy. There have been numerous modifications to the statute as well as many changes to Labor and Industries' implementing WAC rules. There still remains a lot of controversy, especially in the area of maintenance, and both administrative and court actions continue to refine the limits and application of "prevailing wages".

DEFINITIONS – PUBLIC WORK AND CONTRACT

The statutory definitions are contained in RCW 39.04.010. To reiterate:

"The term public work shall include all work, construction, alteration, repair, or improvement other than ordinary maintenance, executed at the cost of the state or of any municipality, or which is by law a lien or charge on any property therein. All public works, including maintenance when performed by contract shall comply with the provisions of RCW 39.12.020.

The term contract shall mean a contract in writing for the execution of public work for a fixed or determinable amount duly awarded after advertisement and competitive bid. However, a contract which is awarded from a small works roster.... need not be advertised."

The administering state agency, the Department of Labor and Industries (L&I), has adopted much more explicit WAC rules that further define both 'public work' and 'contract'.

APPLICATION TO PUBLIC WORKS CONTRACTS

All public works contracts let by a city or county must include provisions for payment of prevailing wages to all workers. Lists of prevailing wages for every area of the state are periodically published and updated. Contact your local L&I Office for those applicable to your area. The "prevailing rate of wages" shall be "the rate of hourly wage, usual benefits and overtime paid in the locality, as hereinafter defined, ... to the majority of workers, laborers, or mechanics, in the same trade or occupation." [RCW 39.12.010] This chapter also defines "locality" as the "largest city in the county wherein the physical work is being performed". There is a large amount of highly technical language in the basic statute that is codified as RCW 39.12, "Prevailing Wages on Public Works". It is important that all public works persons responsible for any contracting out be well versed on this law.

IMPLEMENTING REGULATIONS – DEPARTMENT OF LABOR AND INDUSTRIES

Once the 'basics', as discussed in RCW 39.12 have been digested, it is absolutely imperative that you know the excruciatingly detailed implementing regulations as published by L&I in WAC 296-127, "Prevailing Wage". It is important to note that the definitions here are slightly different and more specific than those in the statute; of particular note is the "public work" definition [WAC 296-127-010(7)]. As this issue continues to 'sort out', changes can be expected in both statute and, more frequently, in WAC rule. Every county is supposed to be on L&I's mailing list for advance notice of rule changes as well as for receiving new procedures, forms, etc. as they are adopted. Be sure you are always working with the most current rules! Management tip: Get to know the L&I person who works directly with your area. It can save a lot of time and trouble if the lines of communication are open.

LIMITATIONS ON PREVAILING WAGES

At first glance it appears that anything that is put out to contract must have a prevailing wages provision. Historically, L&I has leaned toward a rather generous interpretation which is generally believed to support union labor groups. Over time, several local agencies have attempted to avoid paying prevailing wages by not

contracting out maintenance or minor construction work but rather securing such services through purchase orders and sole source arrangements, often for rather small amounts of money which fall within the scope of direct purchasing as allowed in RCW 36.34, "County Property". The current status of the WAC rules has removed any ambiguity as the term "contract" has been expanded to mean virtually any type of agreement. Furthermore, the source of the funding is also irrelevant and there is no minimum threshold amount.

There are a few areas common to many public works/road departments for which an exemption to prevailing wages exists:

- Production and stockpiling of rock/gravel for 'unspecified future use'. [WAC 296-127-018(3)(c)]
- Other certain material handlers with limited duties. [WAC 296-127-018(3)(a) & (b)]
- Sole business owners or major partners. [WAC 296-127-026].

Your own employees are also exempt. In times past there was some controversy as to whether public employees have any entitlement to prevailing wages. Clear language exists in WAC 296-127-026(4) if someone asks to see it.

TRENDS

As Washington is still a strong organized labor state, it is expected that future changes to both statute and WAC rules will tend to reduce any exceptions to public agencies paying prevailing wages for contracted work. Watch for rule making notices and explanatory/advisory bulletins from L&I.

6.C.4. Permits

For almost any road or bridge construction or reconstruction project, one or more permits will be required, most of which are environmental in nature, especially where new or additional right-of-way is required. County Engineers must be aware of the probable requirement for such permits and factor the delays, conditions, or special time requirements into the overall project development and construction timetable. Some of the permits that may be required include:

1. Roadway clearance from airports (Federal Aviation Administration)
2. Coastal Zone Management compliance (State Department of Ecology)
3. Hydraulic Permit (State Fish & Wildlife Department)
4. Wetlands and Waters Permit (Army Corps of Engineers)
5. Endangered Species (US Fish & Wildlife Service, National Marine Fisheries Service)
6. Archeological, Historic, Cultural Sites (State Historic Preservation Office)
7. Timberlands (State Department of Natural Resources)
8. Water Quality (State Department of Ecology)
9. Pits and Quarries (State Department of Natural Resources)

This is not necessarily an all-inclusive list. The main point is to be aware that practically all construction and related activities (and many road maintenance

activities, also) performed by the county engineer's office are regulated or restricted by a wide variety of state and federal agencies.

6.C.5. Small Works Roster

Because of the increasing cost and complexity of going through the competitive bid process (see Section 3.C.6. for a discussion of purchasing regulations applicable to counties), counties have sought to find an alternate "shortcut" method for the smaller contracts. In 1991, legislation was passed that allowed the development and use of a 'small works roster' for a wide variety of purchased equipment and services. Regarding road construction and other 'public works', this process can be used for contracts from \$10,000 up to \$200,000.

The requirements of this useful process are set forth in RCW 39.04, "Public Contracts and Indebtedness", in particular sections 39.04.155 through 200. In short, you may create one or more rosters that are developed by a local advertising process. Originally done at least once per year, the 1993 Legislature amended the statute to require advertising at least twice per year (they also amended it to apply to all 'municipalities' and not just counties). If you use the small works roster process, you also must post a list of the contracts so awarded every two months. [RCW 39.04.200]

6.C.6. Interagency Agreements

PURPOSE

RCW 39.34, The Interlocal Cooperation Act, provides all public agencies within the state a powerful tool for cooperative working arrangements. This statute permits "... local governmental units to make the most efficient use of their powers by enabling them to cooperate with other localities on a basis of mutual advantage and thereby to provide services and facilities in a manner and pursuant to forms of governmental organization that will accord best with geographic, economic, population and other factors influencing the needs and development of local communities." [RCW 39.34.010] The term 'public agency' is broadly defined in RCW 39.34.020.

REQUIREMENTS

Whenever a county enters into such an agreement pursuant to this Act, any powers and authorities of the county may be exercised on behalf of the other public agency; provided, however, that the other public agency has the same powers and authorities (see 'Some Cautions' following). Any such agreement must be approved by the county legislative authority by resolution or ordinance, and must specify the duration, purpose, financing, and termination of the agreement. Detailed requirements are listed in RCW 36.34.030. In addition, any agreement made under the Interlocal Cooperation Act must, before it takes effect, be filed with the county auditor.

SOME CAUTIONS

The Interlocal Cooperation Act is not a 'blank check' to avoid other aspects of the statutes. Recent court cases and legal opinions have created some limits. A

common example involves day labor limits for cities. Except in case of emergency, cities cannot construct projects in excess of \$10,000 [RCW 35.77.030] other than by contract. This cost limitation also applies to work done by county forces pursuant to an interlocal agreement with a city. The county could, however, let and manage a contract on behalf of the city under such an agreement. Another possible exception (which is only an opinion and not case law) is the provision of 'professional services' as defined in RCW 39.80 for another agency. In summary, when entering into such an interlocal agreement, you are responsible to see that neither you nor the other agency is avoiding other statutory requirements or limitations.

County Engineers may have a variety of on-going agreements with a variety of other agencies. Typical are ones for road work with the smaller cities within the county, with the state or federal forest land management agencies, and with neighboring counties for road maintenance on routes that are best serviced by the other county due to location. Of course, these types of agreements may also go the other way; it may be advantageous for other public agencies to do work for you. Under this statute, counties may also purchase goods and services under a contract let by another county or other public agency. Purchasing automobiles from a State contract or heavy equipment from a neighboring county's contract (with it and its vendor's agreement) are good examples.

6.C.7. Use of Consultants

AUTHORITY

In this context we are only considering those consultants in the fields of engineering, land surveying, architecture, and landscape architecture. RCW 39.80, 'Contracts for Architectural and Engineering Services', regulates the securing of such services by state and local agencies and special districts. All other services (as well as materials, equipment, and supplies) are regulated by the competitive bidding procedures and dollar limitations as set forth in RCW 36.32.245.

PROCEDURE

The statute sets forth the basic procedural requirements for retaining architectural and engineering consultants and their consulting services. This can be done on a project-by-project basis by publishing a request for proposal (RFP) for professional services, reviewing their qualifications and performance data, selecting the most highly qualified, and negotiating a contract with the most qualified consultant. Another option is to advertise, typically annually, for a category or type of professional service anticipated to be needed, build a roster of interested consultants, review their qualifications and performance histories, and then assign work as needed. Both the project-by-project and roster process can be used depending upon the circumstances of the required professional services. In the case of emergencies, however, necessary consulting services can be acquired without such procedures.

6.D. MATERIALS

Materials used on a federally designated National Highway System (NHS) route must be tested by a materials inspector and in a laboratory facility that have both been certified

by the WSDOT. The WSDOT Construction Manual is the most complete resource for overall materials testing and project inspection questions. LAG Manual details, however, override the WSDOT Construction Manual for the testing of some materials as well as the frequency of tests/sampling. See LAG Manual Chapter 52 for details.

6.E. CONSTRUCTION INSPECTION

The manner in which project inspection is carried out will, to a large extent, determine the project's success. Timely and complete inspections not only will ensure that high quality materials and construction methods are used, but also will enable good owner/contractor communication. In the end, thorough inspections will reduce the number of claims the county would otherwise have to resolve. The engineer must open communication with the contractor from the onset, at the pre-construction conference, regarding items of work that need special attention, and that will require all parties to work closely together.

AUTHORITY OF THE ENGINEER ON CONSTRUCTION PROJECTS

The authority of the engineer (representing the owner) and his/her assistants and inspectors is defined in the Control of Work section of the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction.

Assistants and inspectors are not authorized to accept work, to accept materials, to issue instructions, or to give advice that is contrary to the contract. Work done or material furnished that does not meet the contract requirements will be at the contractor's risk and shall not be a basis for a claim even if the inspectors or assistants purport to change the contract.

Assistants and inspectors may advise the contractor of any faulty work or materials or infringements of the terms of the contract; however, failure of the Project Engineer or the assistants or inspectors to advise the contractor does not constitute acceptance or approval.

AUTHORITY OF CONTRACT DOCUMENTS

Since the Standard Specifications undergoes continual revision, updates not included in the latest edition are incorporated into the contract provisions as addenda. The contract incorporates many documents describing how work is to be performed. When there are inconsistencies among these, they will be resolved according to the following order: (1 presiding over 2, 2 over 3, etc.) as listed in the Control of Work section of the Standard Specifications.

1. Addenda
2. Proposal Form
3. Special Provisions
4. Contract Plans
5. Amendments to the Standard Specifications
6. Standard Specifications and
7. Standard Plans

If an item of work is not standard and the contract documents do not mention how it is to be performed, then the work will be performed in accordance with regularly observed standard trade practice(s).

It is critical that the construction inspector keep the daily inspection report current. CRAB has developed a computerized daily report system that is available to the counties.

6.F. CONTRACT ADMINISTRATION

Currently, all counties are operating under Certification Acceptance (See Section 6.B.) granted by the WSDOT and are considered fully capable of administering their own construction contracts. The key elements to becoming "certified" as well as having good project development and contract administration regarding projects with federal funding are contained in Chapters 51-53 of the WSDOT LAG Manual. Key areas of administration are:

1. Pre-construction conference. (See sample agenda in Chapter 52 of the Local Agency Guidelines)
2. Quality Control. The county must approve all materials used in the project, and must follow the measurement methods described in the contract documents. See also the WSDOT Construction Manual.
3. Establishing the number of working days allowed to complete the project.
4. Progress payments to the contractor.
5. Changes and extra work.
6. The WSDOT Standard Specifications for Road, Bridge, and Municipal Construction contain provisions for termination of a contract.
7. All subcontracts must be in writing.
8. DBE and EEO requirements
9. Completion of the project and required documentation.

Only counties operating under Certification Acceptance are allowed to use their own forces to construct a federal funded project. The WSDOT will determine final project acceptance.

A good contract administration process includes the following characteristics:

- A Washington State registered professional civil engineer is in charge;
- There are sufficient capable and trained staff to properly administer all the contract administration functions;
- A formal process has been established for handling change orders, material testing, and complete project oversight and inspection; and
- A project accounting system to track all charges and payments is in place.

The new County Engineer should review the current Certification Acceptance Qualification Agreement and periodic Certification Acceptance Interview Form to insure the county does have the capability to administer its own contracts.

6.G. WORK ZONE TRAFFIC CONTROL

Good traffic control is essential, not only for the safety of the traveling public, but also for county employees and those construction workers whose work often requires them to be in close proximity to high speed traffic. The primary function of work zone traffic control is to allow vehicles and pedestrians to move safely and easily through or around work areas. Effective temporary traffic control enhances traffic safety and efficiency. Drivers and pedestrians need to be guided in a clear and positive manner while approaching and traversing temporary traffic control zones.

No single set of traffic control plans can satisfy all conditions for all work zones. The MUTCD has been adopted by WSDOT as the legal standard for work zone traffic control. Refer to Chapter 2 of the WSDOT Construction Manual for further information.

Basic procedures that should form the basis of a good work zone traffic control plan include the following¹⁸:

1. Provide substantial protection and minimize worker exposure to traffic by applying barriers and devices in practical ways.
2. Prior to the beginning of work operations, evaluate all aspects of the work area including: sight distance, traffic speed, volume, and the type of work activity being done before deciding on a traffic control plan.
3. After the traffic control plan is implemented, the supervisor should drive through the work area, at the anticipated speed of the motorists, to determine the effectiveness of the plan. Additional reviews are recommended throughout the day to insure that traffic control devices remain in place.
4. Plan ahead for equipment, materials, and manpower needed for traffic control such as signs, channelization devices, pavement marking materials, etc.
5. Traffic control devices are used to visually guide drivers through work zones. Signing, channelization devices, and warning beacons all display a message to the driver. Work zone credibility is established through the proper use of these devices to send correct messages to drivers. Poor work zone credibility has a direct negative impact on work zone safety by causing driver confusion, frustration, and disrespect which results in a high potential for accidents.

¹⁸ From "*Work Zone Traffic Control Guidelines*", WSDOT.

7.A. OVERVIEW

Maintenance is one of the biggest challenges facing the County Engineer. It is also the greatest opportunity for success. Used proactively, the maintenance crews are a wealth of information. No one else drives the roads daily and fixes all of the recurring problems. They can be the eyes and ears of the Road Department and even provide a pulse reading of community attitudes and growth problems which otherwise may be overlooked until the Commissioners are involved. They have as much or more contact with the public as any other county organization and represent the county both positively and negatively. The daily and weekly maintenance results on the roads are one of the most visible services provided by the county. They can make the Engineer's job easier, or they can make it impossible.

The maintenance program is usually one of the largest groups of employees in the county and one of the most unionized. The differences in educational background between the typical engineering employee and the typical maintenance employee often lead to a lack of communication and potential mistrust and can lead to conflicts within the department.

The maintenance budget is typically 1/3 to 1/2 of the annual expenditures of the road department. The budget is substantial and the standards and practices vary widely among counties.

7.B. MAINTENANCE ACTIVITIES AND TECHNIQUES

Maintenance can be roughly categorized into three groups: reactive, routine, and preventive maintenance.

Reactive maintenance includes unanticipated failures of road surfaces, loss of signs, trees across the road, etc. It also includes response and repair during true emergency conditions such as flooding, windstorms, earthquakes, and volcanoes. Historically, most counties can anticipate events and can roughly budget for them. Emergencies can provide a severe test of the engineer and the road department. The department must have practiced plans in place and the commissioners must provide a budget item for the unexpected. If the department flounders in its response through lack of preparation, lack of obtaining appropriate permits, inability to make responsible, on-the-spot decisions, lack of control over employees, or even the perception of incompetence, then the engineer may lose the confidence of the Commissioners.

Routine maintenance is the normal day-to-day budgeted activities that keep the roads operational. The key to successful routine maintenance is an annual work plan that is balanced between FTEs and budget and has the necessary supplies, materials, and equipment available with qualified operators at the scheduled time and location. Key to a successful work plan is knowing the cost of the various unit activities that are performed. This cost includes man-hours of various skills, equipment hours, and materials. The accuracy to which these costs are tracked and updated is critical.

Preventive maintenance is planned effort to restore an item to good condition while the restoration is cost effective and well before routine maintenance is required. The pavement management strategies are examples of preventive maintenance.

There are several peer groups representing maintenance interests. The EWACRS¹⁹ and WWACRS²⁰ each meet several times per year and share information. The Northwest Pavement Management Association (NWPMA) also provides excellent information. There is also a group of city/county/state fleet managers.

7.C. MAINTENANCE MANAGEMENT

Maintenance Management is based on the application of sound management principles to public works maintenance operations. A Maintenance Management System (MMS) provides for the orderly conduct of the following essential management functions:

- Planning and budgeting
- Organizing to do the work
- Directing the work
- Controlling the results

Maintenance Management Systems have been designed to incorporate these essential management functions into maintenance operations. A typical MMS consists of the following elements:

- | | | |
|------------------------------------------|----|----------------------|
| • Setting objectives | } | Planning & Budgeting |
| • Defining work activities and standards | | |
| • Developing annual work programs | | |
| • Organizing and allocating resources | -- | Organizing |
| • Authorizing and scheduling work | -- | Directing |
| • Reporting and evaluating performance | -- | Controlling |

The first three elements are related to the management principle of planning and budgeting, the fourth element is related to organizing, the fifth is related to directing, and the last element is related to controlling. The results of the reporting and evaluation function are used not only to control the work, but also to feed back to the planning function to improve the accuracy of the next work program and budget.

A schematic representation of a Maintenance Management System is shown on Figure 7-1. Further description of MMS elements is provided below.

7.C.1 Objectives

The primary purpose of a Management System is to carry out objectives in the most effective and efficient manner possible. This requires setting of objectives to guide management efforts and to serve as the basis for developing plans, measuring progress, and evaluating results.

¹⁹ Eastern Washington Association of County Road Supervisors

²⁰ Western Washington Association of County Road Supervisors

A public works maintenance organization is concerned with preserving the public investment in facilities, providing adequate levels of service to ensure safe and efficient operation, and making efficient use of available resources. These are very basic and very general objectives. The Public Works Manager must set more specific objectives to guide day-to-day maintenance operations.

An operating policy for maintenance management should be developed and officially adopted. In carrying out this policy, levels of service and standards of performance will have to be established for the various maintenance activities, and both work programs and budgets will have to be defined to achieve these levels. Furthermore, there must be a commitment to provide the required resources to carry out the maintenance work program. This, in turn, means that priorities will have to be established for the entire public works operation to avoid conflicts between construction, maintenance, and other activities of the agency.

7.C.2 Work Activities and Standards

The first step in developing a maintenance work program is to define the work to be done. The work must be identified in unmistakable terms that are measurable and that can be related to resource requirements on a consistent basis.

Specific work activities are identified by name and number to account for most of the annual workload – typically 85 to 90 percent. The remaining 10 to 15 percent of the workload is usually composed of an almost endless list of rather minor activities that can be grouped as “miscellaneous”.

A quantity standard is used to define a level of service for a specific activity. That is, the quantity standard is used to define the amount of work that needs to be done to provide the desired level of service. These are established largely on the basis of experience. For example, the Maintenance Manager may know from experience that approximately 0.25 tons of premix per lane-mile has to be used on the roads each year to keep up with pothole patching. That value, then, can be used as a quantity standard and may be adjusted upward or downward to raise or lower the level of service for pothole patching.

Performance standards are used to define the best way to accomplish each activity. The optimum crew and equipment complement is specified, along with the major materials needed and the preferred procedure for doing the work. Also, the expected amount of work to be accomplished each day is specified, based on using the standard over a period of time under average conditions.

7.C.3 Developing Work Programs and Budgets

Another prerequisite to preparing a work program and budget is obtaining an inventory of all facilities to be maintained.

Unit costs will be needed for labor, equipment, and materials so that the cost of performing the work can be determined. The unit costs can then be applied to

the standard list of resources for each performance standard to determine the average daily cost for performing each activity.

With the inventory, quantity standards, performance standards, and unit costs in hand, the annual work program and performance budget may be determined.

By applying the quantity standards to the inventory values, the annual workloads by activity are determined. Applying the performance standards to the workload provides the amount of labor, equipment, and materials required to accomplish the work.

The performance budget is calculated by applying the unit costs to the resources and totaling the results. The term "performance budget" is used because the budget is derived from a specific amount of work that is to be performed rather than by the traditional method of making an adjustment to last year's budget to reflect inflation and other factors.

7.C.4 Organizing and Allocating Resources

To accomplish the work program efficiently, the workload must be evenly distributed throughout the year. Seasonal influences on the work must be taken into account first. Then, the remainder of the workload must be distributed to achieve as level a workload as possible.

With the workload spread out over the year on a monthly basis, an annual work calendar can be developed to guide the development of short-term schedules. Specific requirements for labor, equipment, and materials on a monthly basis will be known well in advance so that no shortages should occur when the work is ready to be done.

Some agencies budget by sub-areas within their jurisdiction, or by road classes, or by some other criterion. The same programming and budgeting process may be used to develop sub-unit work programs and budgets that may be combined to obtain the agency-wide work program and budget. With resource requirements for each sub-unit clearly defined, the allocation of appropriate resources to each unit in order to accomplish its assigned workload will be a straightforward matter.

7.C.5 Authorizing and Scheduling Work

The secret to providing the desired level of service and staying within budget is to ensure that only the planned amount of work is done – no more and no less. After the annual work program and budget is approved, managers must have a simple method of authorizing and scheduling work to ensure that the work program is carried out as planned.

Usually bi-weekly schedules are prepared, using the annual work calendar as a guide. To the extent possible, the planned work should be carried out and every effort should be made to stay on schedule. If activities such as snow removal or storm damage repairs and cleanup turn out to be greater than planned, the work

program will have to be adjusted or additional funds requested to complete the planned work.

To ensure that field crews perform only the authorized work, work-orders or crew-day cards are typically used by the supervisor to authorize work on a day-to-day basis. Each work order authorizes a crew to perform a specific amount of work on a specific activity.

7.C.6 Reporting and Evaluating Performance

Daily time cards are typically used in Public Works organizations to track labor, equipment, and materials used for maintenance activities. These cards or forms, if properly designed, can also be used to report the amount of work done and the locations of work as well as the resources used. Normally, these are completed at the end of each day, or at the end of each job if more than one activity is performed during the day.

The daily work reports should be reviewed by the supervisors promptly to ensure that they were completed properly and to determine if the performance standards were substantially followed. Significant variations should be followed up promptly to determine the cause and, if necessary, take corrective action.

The daily work reports are summarized on a monthly basis to produce performance evaluation reports. These are used to evaluate performance and monitor progress toward accomplishing the work program. Again, significant deviations from the planned work program and budget should be investigated and appropriate follow-up action taken.

The importance of this step cannot be overemphasized. Without evaluation and control to ensure that the plan is followed, the entire maintenance management effort will be in vain.

7.C.7 Summary of Maintenance Management

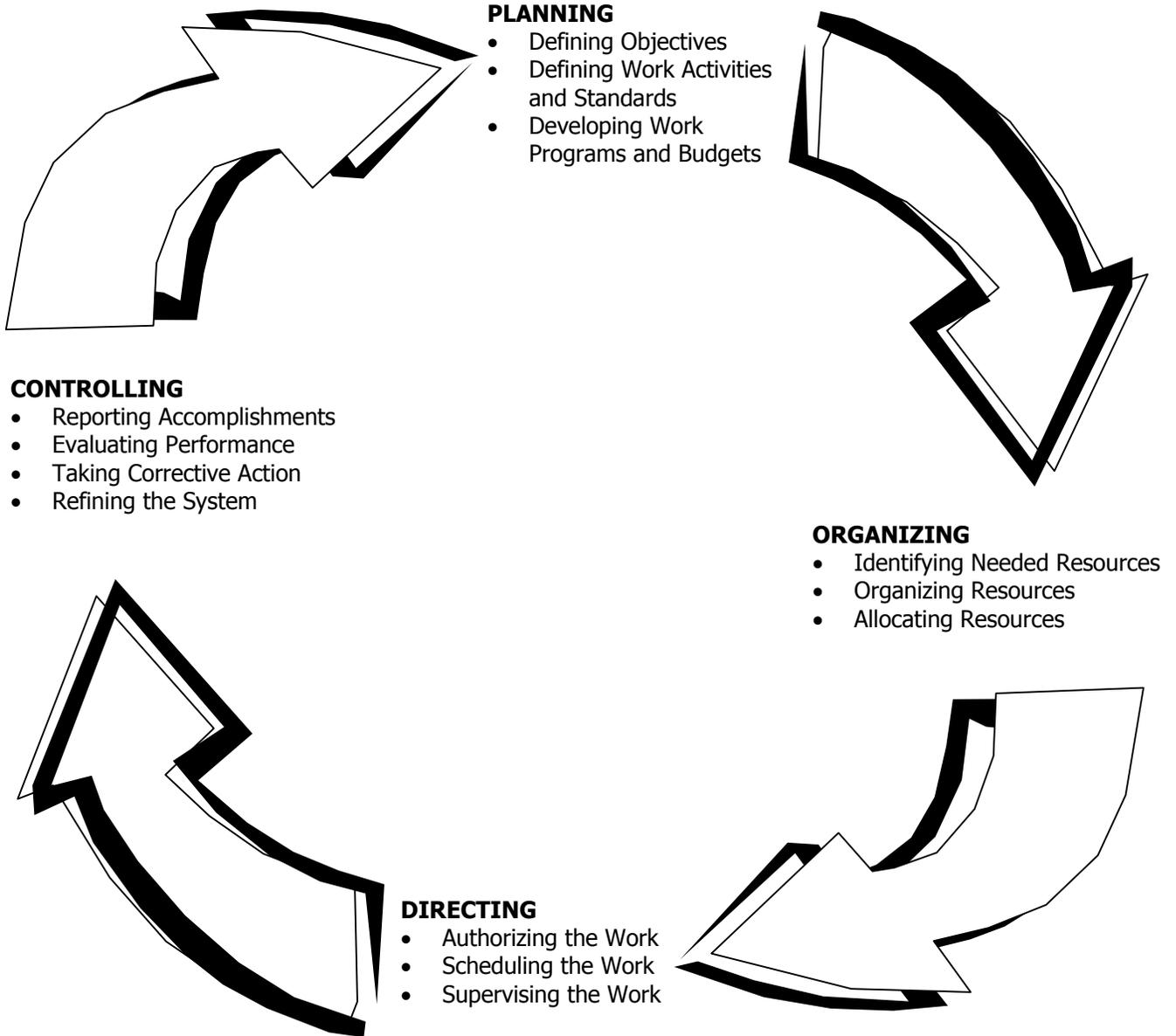
The MMS is a complete management system and can provide more than management information alone. There are provisions for setting objectives and standards to aid in planning the work, for determining resource requirements, for developing the performance budget, and for scheduling, reporting, and controlling the work. Basically, the MMS is a process for more effective and efficient planning, organizing, directing, and controlling of maintenance work. It begins with setting specific, quantitative work objectives and then follows through the complete management cycle to ensure that actual performance is consistent with objectives.

7.D. TRAFFIC OPERATIONS

The aspect of maintenance and operations dealing with the placement and maintenance of signs, striping, and buttons is often either directly under the traffic engineer or at least is a separate section of the maintenance function because of the extreme liability concerns. This section can work closely with accident investigation and documentation.

FIGURE 7-1

MAINTENANCE MANAGEMENT SYSTEM



8.A. EQUIPMENT RENTAL AND REVOLVING FUND

8.A.1 General

As a county engineer or public works director, one of your more important duties is being the administrator of the Equipment Rental and Revolving Fund, typically referred to as 'ER&R'. Counties are required by statute to establish this separate county fund, which is a revolving fund created primarily for "...the purchase, maintenance, and repair of county road department equipment; for the purchase of equipment, materials, supplies, and services required in the administration and operation of the fund; and for the purchase or manufacture of materials and supplies needed by the county road department." [RCW 36.33A.010] This is typically one of the largest funds you may manage and can have significant impact on the Road Fund.

8.A.2. Authority

The authority for the creation of this fund is found in RCW 36.33A. All counties must have such a fund and it may be used by any other department of county government or any other government agency if so authorized by the board. [RCW 36.33A.020] Be aware that if other funds use ER&R, one may benefit from any other.

8.A.3. Administration

Although normally administered by the county engineer, the county legislative authority may appoint someone else [RCW 36.33A.030]. In any event, the county engineer retains the rate-setting function, subject to annual review by the legislative authority (RCW 36.33A.040), for all of the equipment owned by the fund to ensure that the costs of maintenance, repair, operating supplies, and future replacement costs are recovered.

8.A.4 Fund Structure

According to the BARS Manual, the ER&R fund is an internal service fund within the general proprietary funds. This fund accounts for operations that provide goods and services to other departments or funds of the county or to other governmental units on a cost-reimbursement basis. Depending upon the complexity of the county and the overall responsibility of the ER&R fund, at least seven different 'cost centers' can be created. These are:

- Pits, Quarries, and Asphalt Plants
- Mechanical Shops
- Parts Stores
- Fuel Depots
- Equipment Rental Services
- Motor Pool Services
- Other Transportation Services

As an internal service fund, ER&R enjoys one protection that the Road fund does not. Any interest accrued from investments in internal service funds must go

back to the originating fund. The engineer should be well aware of the balances in the ER&R fund, and the interest accrued, as these are key elements to determining both the annual purchase capability and rate setting.

8.A.5. Some Observations

In many cases, the ER&R fund is directly administered by the county engineer or public works director. If you are not experienced in the operation of such a 'business-oriented' function, you should ensure that an experienced, professional manager is put in charge of the day-to-day operations of the ER&R. Remember that ER&R operates on a cost-recovery basis – and your use of the road equipment and materials that are furnished to you from this fund constitutes by far the largest amount of revenue for the fund. You should also consider 'earmarking' any accumulated funds set aside for capital replacement for that specific purpose so as to discourage 'borrowing' efforts by others for non-road purposes (loans are allowed, but must be repaid in a timely manner with interest). It is suggested that a fund balance should, as a minimum, be no less than one year's needs for replacement. The State Auditor provides additional guidance on its website for financial management of the ER&R Fund.

8.B. RISK MANAGEMENT

A major reason for a strong road department is to make the roads safe for public travel. A negative aspect of the Engineer responsibility is the county and personal liability in the event the public is injured. The method the county spends its resources to reduce its liability either through safety improvements, better maintenance, more attention to traffic operations, or individual training and records management all constitute risk management. In order to cover the potential financial risk of losing a liability lawsuit, counties are typically either self-insured or members of the Counties Risk Pool, a consortium of counties.

Upon initial hire, the Engineer needs to verify his/her status as to protection under the counties' risk management agreements against personal liability in the event he/she is personally sued for faulty work.

8.C. EMERGENCY MANAGEMENT

8.C.1. General Information

Emergency Management in Washington State is authorized by the laws contained in RCW 38.52. The Washington State Military Department, Emergency Management Division (EMD) administers the state emergency management program. Each political subdivision is authorized and directed to establish a local organization or to be a member of a joint local organization for emergency management in accordance with the state comprehensive emergency management plan and program. [RCW 38.52.070] More specifically, WAC 118-30-040 sets out the responsibilities of political subdivisions:

"(1) Each political subdivision must establish an emergency management organization by ordinance or resolution passed by the legislative body of the political subdivision. Two or more

political subdivisions may join in the establishment of an emergency management organization.

(2) Each political subdivision shall develop, promulgate, and submit a comprehensive emergency management plan...."

A comprehensive emergency management plan is a written basic plan with elements that address all natural and manmade emergencies and disasters to which a political subdivision is vulnerable. The comprehensive emergency management plan specifies the purpose, organization, responsibilities and facilities of agencies and officials of the political subdivision in the mitigation of, preparation for, response to, and recovery from emergencies and disasters. WAC 118-30-060 requires that the plan include a functional description of how numerous operational components will be addressed. Two of those "operational components" are Transportation and Emergency Engineering Services. Road system related emergencies should be fully covered in the county's plan. In other words, like it or not, the Road Department is a major player in emergency management activities. At times, road maintenance personnel may even be the first ones on the scene of an emergency (landslide, etc.).

Some of the most commonly occurring emergency situations will involve the Road Department; flooding and snow and ice storms being two of the most common. It is recommended that every road department develop its own Emergency Response Plan to address the internal policies and procedures inherent in responding to emergencies. CRAB has developed a Model Public Works Emergency Response Plan that counties may adapt to fit their individual needs. CRAB also maintains examples of Snow and Ice Plans and Flood Operations Plans as reference materials.

One thing to note is that RCW 38.52.070(1) requires that "Local comprehensive emergency management plans must specify the use of incident command system for multiagency/multijurisdiction operations." (Emphasis added.) Any of your staff that is involved in emergency response should be familiar with the Incident Command System.

Contact the EMD for courses related to Emergency Management, some of which are specific to Public Works issues.

8.C.2 Commissioners' Authority

Washington State law gives local jurisdictions the responsibility for protecting their citizens. It also provides great flexibility in paying for such costs when a disaster occurs requiring local action beyond normal capabilities, provided that local officials issue a proclamation or resolution of emergency. A local proclamation authorizes the emergency use of local resources and allows emergency expenditures, as well as waiving the normal bid procedures, if necessary. A local proclamation is a prerequisite for some state or federal assistance.

The RCW has specific sections that deal with emergency powers for local governments. The section that applies to counties is RCW 36.40.180. Generally, before requesting state assistance or a Governor's Proclamation of Emergency,

all local resources are committed and effective response is beyond the capabilities of the affected local jurisdiction. Local resources include those owned by the local jurisdiction or private sources obtained with local funds. Mutual aid or interlocal agreements should be considered as well. (See Section 8.C.4.)

8.C.3. State Assistance

The state may respond even if a Governor's Proclamation is not issued. Any response under the State Comprehensive Emergency Management Plan or any special contingency plan can be initiated without a proclamation of emergency. This commitment of resources can create a severe financial strain that can be overwhelming to long-term recovery.

A Governor's proclamation does not imply that the state will reimburse the local costs of responding to or recovering from an emergency. If other assistance is not available, the cost of recovery is borne by the individual; local and state governments; businesses and industry; and Indian Tribes. State assistance is supplemental to the local capacity to recover from disasters.

There may be federal assistance in dealing with road and bridge emergencies under certain conditions. Chapter 33 of the WSDOT LAG Manual provides an excellent and essential discussion of the process and procedures to be followed. The Public Works Trust Fund also has a loan program for repairs to damaged facilities.

8.C.4. Mutual Aid and Interlocal Agreements²¹

Mutual Aid and Interlocal Agreements exist to provide local jurisdictions with the opportunity to exchange services during an emergency or disaster.

A Mutual Aid Agreement is general in nature and is basically an understanding that support will be provided, *if possible*. The type of service to be provided is frequently open-ended. A Mutual Aid Agreement is an understanding that, "...my jurisdiction will assist your jurisdiction during an emergency. Give me a call, let me know what you need, and I'll see what we can do." In most circumstances, Mutual Aid Agreements are required to be implemented before assistance is requested from the state.

An Interlocal Agreement is specific in perspective and it is more contractual in design. With an Interlocal Agreement, specific services are agreed upon to be provided under defined conditions. An Interlocal Agreement provides a much clearer understanding of what support may be received during an emergency or disaster, but is less flexible.

It is important to understand that both Mutual Aid and Interlocal Agreements are contracts and can say and do what the parties want and agree should be done.

²¹ "Mutual Aid and Interlocal Agreement Handbook", Washington State Military Department, Emergency Management Division, Camp Murray, Washington, January 2001.

In preparing agreements, legal authorities of the jurisdictions, prosecuting attorneys, city attorneys, or hired counsel should play an important part in drafting the document. What is prepared and signed is a matter of coordination and agreement between the local jurisdictions and must comply with legal requirements for that jurisdiction. Once signed, it is a contractual obligation.

For more information, see the "Mutual Aid and Interlocal Agreement Handbook", published by EMD.

8.C.5. Organizing for Emergencies

Since emergencies frequently occur with little or no advance warning, it is important that each County Engineer have an emergency response plan in place before an emergency occurs. At a minimum, this plan should include:

1. The basic chain of command with defined alternatives to be followed in case key personnel are not immediately available;
2. An up-to-date list of all personnel home telephone numbers;
3. Blank "declaration of emergency" resolution forms for the use of your legislative authority; and
4. Special labor, equipment, and materials record forms to track all costs attributable to the emergency. The BARS Manual provides a special expenditure code – 545.xx "Road and Street Extraordinary Operations" – just for such situations. The record forms should also include space for recording the specific locations including the federal functional class code at which the emergency work is being done. Such a recordkeeping system is essential should the emergency become eligible for federal funds.

8.C.6. Documentation

Documentation is the process of establishing and maintaining accurate records of events and expenditures related to disaster recovery work. Documentation basically describes the "what, who, when, where, and how much" for each item of disaster recovery work. Adequate documentation is necessary for you to:

1. Recover all of your eligible costs.
2. Have the information necessary to develop your disaster projects.
3. Have the information available (which the state and FEMA will need to see) to validate the accuracy of your small projects.
4. Be ready for any state or federal audits or other program financial reviews.

Additional information on required documentation and other issues related to the FEMA Public Assistance Program are available from the State EMD.

8.D. LABOR-MANAGEMENT ISSUES

One of the toughest aspects of the Engineer's job is being a manager and leader of your employees. Everyone knows you should treat everyone fairly and honestly, but actions are harder to accomplish than words. Public Works and road maintenance in particular is very unionized. The good news is that most of the rules are published in the union-management contract and if you follow them religiously you will be "right" – possibly

“dead right”, but “right”. Recognizing that most contracts and unions are the result of poor management, the best advice we can give is to work with the union stewards and always listen to your employees. If they feel involved, included, and listened to, the majority will solve many of your problems with trouble employees for you. Treat them with respect and they will treat you likewise. Alienate them and your life will be miserable.

A decision point is whether you personally should be involved in the contract negotiations, or if you should be on the sidelines. There is no right answer.

Most problems are over wages (which the employee will usually realize you have no control over) and overtime and promotions (which you do control). Set procedures that are fair and easily understood and follow them in every situation and life will be easier. Visit the job sites and get to know every employee and treat them like the valued members of your team that they are.

8.E. RECORDS MANAGEMENT

RCW 36.80.040 states:

"The office of county engineer shall be an office of record; the county road engineer shall record and file in his or her office, all matters concerning the public roads, highways, bridges, ditches, or other surveys of the county, with the original papers, documents, petitions, surveys, repairs, and other papers, in order to have the complete history of any such road, highway, bridge, ditch, or other survey; and shall number each construction or improvement project. The county engineer is not required to retain and file financial documents retained and filed in other departments in the county."

Face it, during your tenure as County Engineer, many public records will cross your path. The question is, what do you do with them? RCW 40.14 and WAC 434 regulate the retention and disposition of public records. The term “public record” applies to any paper, correspondence, form, bound volume, film, magnetic record, drawing, or other document, regardless of media, that has been created or received by any state or local government agency during the course of public business.

The county may have a records manager and, in larger counties the Public Works Department may have its own records manager. In either case, it is important that you have a basic knowledge of Records Management as it applies to Public Works records. A few things to remember:

1. All public records remain the property of the agency. Outgoing officials and employees must pass such records on to their successors. Furthermore, public records must be preserved, stored, transferred, destroyed, and otherwise managed according to the provisions of RCW 40.14 unless otherwise provided by law. [WAC 434-615-010]
2. Access must be provided for the public inspection and copying of agency records according to the provisions of the Public Disclosure Act (RCW 42.17). Public records may be destroyed or transferred only in accord with the instructions and

approval of the State of Washington's Local Records Committee. [RCW 40.14.070]

3. The Local Records Committee adopts and issues records retention schedules that give authority to local agencies for the disposition of specific types of commonly held records. General records retention schedules provide this authority on a recurring basis until such time as they are revised or rescinded by the Committee. In addition, local agencies may develop their own records retention schedules and submit them to the Local Records Committee for approval. Once a records retention schedule has been approved by the Committee, the local agency has the authority to process the records listed thereon until the schedule is revised or amended.

Instead of being retained permanently by the agency, records designated as having archival or historical value may be officially transferred to the State Archives or one of its regional branches. It is illegal to transfer public records to private persons or organizations or to depositories not designated by the State Archivist.

The current General Records Retention Schedule for Local Government "Public Works – Engineering" documents is included as Figure 8-1. For more information on the intricacies of managing your records, talk to your Records Manager or Contact the State Archivist. The MRSC website (www.mrsc.org) contains a copy of the Local Government Records Management Manual.

8.F. ANNEXATIONS AND INCORPORATIONS

8.F.1. Annexations²²

There are a number of methods available to cities and towns in Washington by which they can annex property. In most cases, the area to be annexed must be contiguous to the boundaries of the city. The procedures by which annexations must occur are governed strictly by state law. One set of statutory procedures applies to cities of the first and second class and towns (RCW 35.13) while another set of statutory procedures apply to code cities (RCW 35A.14). Cities and towns that are located in counties that plan under the Growth Management Act may only annex property that is located within their identified urban growth areas.

8.F.2. Incorporations²³

Under Washington law, an area can incorporate as a city if it has a minimum of 1,500 inhabitants. If within five air miles of the boundaries of a city with a population of 15,000 or more, the area must have a minimum of 3,000 inhabitants. The basic procedure to incorporate is set out in RCW 35.02, and includes a petition requirement, review by a boundary review board or the county legislative authority in counties without a board, and an election.

²² Municipal Research & Services Center, Seattle WA.

²³ Ibid.

8.F.3. Boundary Review Boards

Boundary Review Boards are created by RCW 36.93.030 in each county with a population of 210,000 or more (King, Pierce, Snohomish, and Spokane Counties). Boundary Review Boards may be established in other counties either by resolution adopted by majority vote of the county governing body or by a petition signed by persons equal in number to at least five percent of the votes cast in the county at the last county general election.²⁴

The State Legislature created Boundary Review Boards to ease the problems that may arise from the “rapid proliferation of municipalities and haphazard extension of and competition to extend municipal boundaries.” [RCW 36.93.010] The boards are to promote the logical growth of local governments, reduce municipal competition for unincorporated territory, and preserve property values and consistent land use planning.

The makeup of the board varies depending on the population of the county. In counties with populations of less than one million, the board consists of five persons, two appointed by the Governor and one each appointed by the county appointing authority, the mayors of the cities and towns, and the special districts. In counties that have one million or more people, the board includes eleven persons, three appointed by the Governor, three by the county appointing authority, three by the mayors of the cities and towns, and two by the special districts. Boundary Review Boards, where they exist, are responsible for examining, evaluating, and making binding decisions regarding proposed incorporations and annexations.

However, in counties in which the GMA applies, the responsibility to effect such policies now primarily resides with city and county governments. In apparent recognition of this shift of responsibility in GMA counties, the legislature has authorized any GMA county, at its discretion, to disband its boundary review board (if any) after the county and the cities and towns within it have adopted comprehensive plans and consistent development regulations that comply with GMA requirements. [RCW 36.93.230] After disbandment of a boundary review board, cities and towns within the county will not, presumably, have annexations reviewed by any board. Thus, the GMA makes annexations a part of the overall planning process and essentially eliminates much of the annexation decision-making process in cities within its purview. The annexation issue facing cities in GMA counties will not be so much whether to annex as when to annex.

8.F.4. Road-Related Issues

A proposed incorporation or major annexation will likely make a very big ‘splash’ in the local media and in the county commissioners’ office as well. One issue that always is a big deal is the loss in sales tax base and in real property taxes. These can cause a big ‘hit’ on the county’s current expense revenues. Because a significant part of the road fund revenue is based on a portion of the real property

²⁴ If a county that contains one or more code cities chooses not to establish a Boundary Review Board, it must establish a “County Annexation Review Board” [RCW 35A.14.160]

tax, the road fund will also be reduced. This reduction often goes virtually unappreciated, as the first assumption is that the reduction in road-related services will offset the reduction in revenues. This assumption is somewhat true, but even if the ratio is one-to-one, you are staffed, own equipment, etc. based on the existing road system and, unless you have a service contract with the new or expanded city, it will take time to downsize to match your new revenues.

What is often overlooked, at least initially, is that there is also a loss in MVFT revenue and in CAPP funds as well. (See Section 3.B.2.). Furthermore, you may have some projects already on the 'drawing board' for which you have expended preliminary engineering funds within the incorporation or annexation area. Another item that seems to be cause for a great deal of consternation with legislative authorities is the transferring of recently completed capital improvements to city jurisdiction. Most legislative authorities (and many county engineers, too) want to get at least some of their investment back. In short, there are a number of annexation issues that will impact the road department. In addition, there may be a variety of non-road-related public works impacts such issues as ER&R, stormwater management, solid waste, parks and recreation, building department, etc. that may also be under your management.

8.F.5. An Incorporation or Annexation Business Plan

In order to correctly compute the effect of an incorporation or significant annexation, the County Engineer (or Public Works Director) needs to develop a two-stage business plan addressing transition impacts as well as the subsequent steady-state situation. The length of the transition period will likely vary depending upon several factors including any on-going adjustments from earlier incorporations or annexations; the size and complexity of the incorporation or annexation; and the likelihood, scope, and duration of service contracting within the city. You must be able to provide both timely and accurate cost estimates of such proposed actions to your legislative authority, sometimes on very short notice. As all of the information is not necessarily available, you must also consider and analyze suitable alternatives in the areas of uncertainty. Having a basic business plan for these eventualities will greatly assist you. The business plan should address each of the issues listed below.

I. Road Department Issues

A. General Revenue Reductions in:

1. Road levy;
2. Motor Vehicle Fuel Tax receipts;
3. County Arterial Preservation Program allocations; and
4. Local Option Taxes (Vehicle License, Local Gas Tax, etc.).

B. Capital Improvement 'Sunk' Revenue (grant funds allocated to projects within the incorporated / annexed area):

1. TIB funds;
2. Rural Arterial Program funds;
3. Federal transportation funds; and
4. Other funds (bonds, PWTF loans, etc.).

- C. Expenditure Reductions in:
 - 1. Routine and programmed road and bridge maintenance, rehabilitation, and resurfacing;
 - 2. Programmed preliminary engineering, right-of-way, and construction engineering costs for projects that will no longer proceed; and
 - 3. General administrative and overhead costs including general engineering (non-CIP) such as bridge inspections and traffic studies; survey monumentation preservation; utility permits and inspections; GIS data; development review and site inspections; TIP/STIP development; general transportation system planning; insurance; general office administration; various management system inventory data collection; etc.
- D. Non-Recoverable, One-Time Encumbrances (money already spent without significant tangible benefit or new expenses connected with the incorporation/annexation) including:
 - 1. Expended preliminary engineering for projects that will not progress;
 - 2. Expended right-of-way costs including engineering costs and payments for already acquired right-of-way completed in anticipation of new construction;
 - 3. Any other work-in-progress in the incorporation /annexation area;
 - 4. Various legal expenses involving issues within the area; and
 - 5. Assembly and transfer of appropriate records, maps, etc.
- E. Service Contracts with City (potential only; scope and duration to be negotiated):
 - 1. Road and bridge maintenance
 - 2. Road and bridge construction
- II. Other Public Works Areas (similar breakdown of specific items as for the road function for other areas under your responsibility) including:
 - A. ER&R;
 - B. Stormwater Management;
 - C. Solid Waste;
 - D. Parks and Recreation; and
 - E. Public Services such as the Building Department, Permit Center, etc.

8.F.6. Assistance

Much assistance to your legislative authority on topics such as property tax, sales tax, etc. primarily affecting general fund issues is available at the WSAC office. CRAB can provide you with information and estimates regarding reductions in your MVFT and CAPP revenues. County Engineers dealing with an incorporation or annexation issue for the first time are highly advised to discuss the issues and their ramifications with county engineers who are well experienced in this phenomenon; call CRAB for some suggestions.

General Records Retention Schedules for Local Government Agencies

Public Works – Engineering

Abandoned, voided, or defective drawings	Destroy
Aerial survey photograph prints, negatives, and flight maps	PERMANENT
Annual Bridge Report	10 years
Annual Construction Program	PERMANENT
As-Built construction project plans and specifications	Life of structure plus 10 years
As-designed drawings and specifications	Life of structure plus 10 years
Bridge Inspection Files	Life of structure plus 10 years
Citizen Service Requests/Complaints	3 years
Construction Project Files	Completion of project plus 6 years
Construction Projects: Preliminary plans and worksheets	Completion of project
Crew Chief/Foreman's Weekly Record/Crew Sheets	3 years
Daily Maintenance Activity Record/Crew Sheets	3 years
Development Files for ACP and TIP	Until obsolete or superseded
Emergency Response Logs	6 years
Geological Data	Until obsolete or superseded plus 6 years
Land Survey Field Books	PERMANENT
Local Improvement District Files	PERMANENT (Clerk of Legislative Authority)
Maintenance Foremen's Reports	3 years
Pit and Quarry Material Control Files	3 years
Plats	PERMANENT (County Auditor)
Right-of-Way Case Files	Life of right-of-way
Right-of-Way Vacation Files	Approval by Legislative Authority plus 10 years
Road and Bridge Closure Notices	Reopening plus 6 years
Road and Bridge Maintenance History Files	10 years
Road Establishment Case Files	Life of road plus 10 years
Road Improvement District Case Files	Close out of funding plus 6 years
Road Maintenance Project Files	Completion of project plus 6 years
Six-Year Transportation Improvement Program	PERMANENT (Clerk of Legislative Authority)
Storm/Disaster Response Action Files	6 years
Street Light History Records	Life of equipment
Survey Maps Filed for Record	PERMANENT
Traffic Accident Reports	3 years (District or Municipal Court)
Traffic Count Data	6 years
Traffic Count Reports	Until obsolete or superseded
Traffic Sign Inventory	Until obsolete or superseded

Figure 8-1

