Appendix G

Capital Facilities: Public Services & Utilities

Appendix G: Other Utilities and Capital Facilities

This appendix provides additional technical detail to supplement the capital facilities and utilities element, including inventories of existing conditions and a listing of various funding sources that may be appropriate for funding capital facilities and utilities projects.

The City's water, wastewater, and storm water systems and facilities are covered in Appendix H. The City's parks and recreation system is covered in detail in Appendix F, and the City's transportation system is covered in detail in Appendix D.

Municipal facilities

Existing Facilities

All City functions with the exception of the Wastewater Treatment Plant are headquartered at the City's main municipal campus at 806 West Main Street. There are three primary structures and two portable buildings occupying the municipal campus. They are the City Hall building, the Police building, and the Public Works portable offices and shop building. There are also three storage and parking outbuildings.

City Hall

The City Hall Building is a 9,600 square-foot one-story facility situated on the north central portion of the municipal campus. City operations occupied the facility in 1977. Since that time, the building has undergone several expansions and improvements. However, these improvements have occurred in an incremental manner with little long-term planning.

Police building

Completed in 1991, the Police Building is the most recent addition to the Municipal Campus. A 9,400 square-foot building was designed and built to be the headquarters for the City of Monroe Police Department. It is located immediately south of the City Hall Building on the Municipal Campus.

Public works shop

The Public Works Shop Building is a 4,000 square-foot metal shed building with a flat roof and two large bay doors. Most of the building is made up of the shop itself while about 500 square feet of space is a restroom with a small office area constructed above. The building is located immediately west of the City Hall Building on the Municipal Campus. The site of the Municipal Campus was originally an automobile dealership, and the existing shop building was part of the previous use. The building is estimated to be more than 25 years old.

The two portable offices have a combined area of 3,360 square feet and contain the department offices, lunchroom, and the Community Coordination Center (CCC) used during natural disasters.

Projected Needs

In 1999, a study was commissioned with three primary goals; 1) conduct a space needs assessment for all City functions for the present, as well as projections for space needs at five, ten and twenty years; 2) evaluate existing structures for present and future use in light of the results of the space needs assessment; and 3) develop a long-range plan for the Municipal Campus in light of both the space needs assessment and the building evaluations. Each aspect of the Municipal Campus Space Study will be discussed below.

Space Needs Assessment

The Space Needs Assessment was based primarily on information provided by department directors and other key personnel. A series of interviews with these individuals, as well as with the Mayor and the City Administrator, formed the basis of both present and future space needs. Department directors were asked to provide information on their current staffing levels along with an estimate of future staff needs at five, ten, and twenty-year intervals. These estimates were based on estimates of the growth of the City while assuming existing service levels will continue into the future.

Each staff position was then allocated an amount of space based primarily on the space needs of that particular position. The criteria used to determine this included but was not limited to supervisory responsibilities and the attendant need for privacy, the need for meeting space, and the need for file storage or bookshelf space. An estimate was then developed of present and future space needs for each department by adding a percentage for halls and walkways, restrooms, and meeting rooms.

The need for space in square feet identified through this process is summarized in the table below.

Table 1-0-1: Five and Twenty Year Space Needs

	5-year (square feet)	20-year (square feet)
City Hall	18,000	21,000
Police	15,000	19,000
Public Works	20,000	21,000

Building Evaluations

City Hall Building

The evaluation of the City Hall Building revealed a number of serious problems.

The existing HVAC system is wholly inadequate for the building and will require replacing if any remodel or modernization is planned for the building. In addition, the existing pitched roof was installed over the original flat roof system. The HVAC heat pumps located on the flat roof were enclosed, further reducing their efficiency.

The existing telecommunication hubs are located in the attic space. This is an extremely harsh environment for this type of equipment.

Electrical power for the City Hall Building originates in the Public Works Shop Building. The existing distribution system within the City Hall building is in fair and serviceable condition, but has reached its

service capacity owing to the increase in electronic loads since the last upgrade in 1981. Existing branch circuiting in the City Hall Building is inadequate, both in number of available circuits and in number of available receptacle outlets.

There is evidence of damaged wood in several locations. Wood beams along the north and east perimeters of the building have blisters that appear to indicate water damage beneath.

A roof inspection revealed that leaks are occurring in locations where screws have backed out of gaskets overdriven at several locations along the roof-to-wall transitions where the shingle roof meets the metal panels. The shingle roof area is adequate and should perform in a satisfactory manner for five or more years.

A cost-benefit analysis was performed to evaluate three alternatives for a City Hall facility in the future. The alternatives were: 1) do nothing; 2) remodel but no new space 3) remodel and expand the existing City Hall Building for future use; and 4) demolish the existing building and replace it with an all new, much larger structure. This analysis assumed a thirty-year horizon. An attempt was made to capture all costs including construction, maintenance, and costs associated with utilities and daily upkeep. For example, it was assumed that the utility and maintenance costs for a new building would be much less than it would be for an older one of similar size.

This analysis showed that the least expensive alternative was number 2- to remodel existing city hall and add no additional space. However, this alternative is not without significant costs. As noted above, additional space will be needed, so there will be costs for additional space even if space is provided off-site or in the form of modular units. The total cost of this alternative was estimated to be $4,186,730. To do nothing at all was estimated to cost only slightly more at $4,410,317.

The costs associated with alternatives three and four were $8,604,574 and $9,428,092 respectively. The fact that there is a small difference between the costs of these two alternatives is due to the need for significant repair and improvements to the existing City Hall Building and to the additional cost of utilities and maintenance associated with an older facility.

Police Department Building

Because this building is relatively new, it clearly will be useful for many years into the future. However, the building evaluation process revealed problems with the existing HVAC system. The existing HVAC in this facility was designed to provide adequate service to the existing structure. However, the system has never worked as it should and there have been constant problems with the system keeping some parts of the building too cool while keeping others too warm.

The Police Building was designed and built with the realization that additional space would be needed for the Police Department before the new building had reached the end of its useful life. In fact, the building was constructed in such a way that the south wall could be removed relatively simply so that the building could be enlarged in that direction. However, the evaluation process revealed that when it was built, the HVAC and electrical services were installed with no additional capacity. Therefore, any future additions to the building will require significant upgrades or replacement of these systems.

The space study revealed that the building already provides far less space than the department needs.

Public Works Shop Building

The roof and gutters were completely replaced in 1997 and are still in good condition. As noted above, however, this facility is very old. As a result, it is completely inadequate in terms of space needs. In addition, it is creating significant costs to the City in both service effectiveness and efficiency.

The employee support facilities for the Public Works Department are wholly inadequate. The Public Works Shop Building has only one restroom (a men's) with one shower stall. Female Public Works employees are forced to use the women's restrooms in the City Hall Building. No Public Works employee currently has access to a locker room. Temporary plywood lockers have been constructed on the main floor of the Public Works Shop Building for their use.

The first portable office was installed in 2000, and the second in 2002. The buildings have a life span of between five and ten years on the site.

The City has identified a potential site for a new Public Works campus adjacent to the North Kelsey Planning Area. It is estimated that the proposed campus, including a new office building, maintenance shops, vehicle and equipment storage building, fueling station, compost bins, and off-street parking will cost approximately $5 million. Construction of the new facility is dependent on budget priorities and financing.

Long-Range Plan for the Municipal Campus

As part of the Space Study, a long-range plan for the Municipal Campus was developed. This plan was based on several key assumptions:

- Though continued growth may necessitate the relocation of some City functions to another location at some point, City functions should remain at the present Municipal Campus located at the intersection of Main Street and Dickerson Avenue.
- In an effort to improve customer service and citizen access, all City departments and functions should be accessed at one entrance on the Campus.
- Any construction or improvements should be accomplished with minimum disruption to City services (e.g., avoid using modular units, continue to use existing facilities until new facilities are completed, etc.).

The last step would be dependent on the acquisition of significant additional property by the City by the time it is needed. It is assumed that the space needs of the City will outgrow the current Municipal Campus at some point in the future.

The timing of the decision to move some City functions away from the current campus will depend upon the growth rate of the City and the attendant growth in City staffing.

Fire Protection Facilities

Existing Facilities

The city of Monroe annexed into Snohomish County Fire Protection District #3 (SCFPD3). Because the fire district serves the city of Monroe, and surrounding 50 square miles of unincorporated Snohomish County, it is difficult to approximate those fire protection services which exclusively serve the city. Therefore, this capital facilities plan is for the entire service area of SCFPD3, which is also known as Monroe Fire District # 3.

Currently SCFPD3 operates two fire stations. The headquarters fire station is located immediately adjacent to the City of Monroe campus at 163 Village Court. This station (Station 31) is staffed 24 hours per day with between five and eleven firefighters, depending upon daily staffing. Station 32 is located at 22122 132nd Street SE and is staffed 24 hours per day with three firefighters.

SCFPD3 is considered a combination fire department; firefighters are a combination of career (union) firefighters and per diem firefighters (part-time). Each day, there are two per diem firefighters scheduled in addition to the (up to) twelve union firefighters scheduled per twenty four hour shift.

Table 1-0-2: Snohomish County Fire Protection District #3 2013 Staff

Amount	Staff
1	Fire Chief
1	Assistant Chief
3	Battalion Chiefs
6	Operations Division Captains
1	Fire Marshal
1	Fire Inspector
1	Training Officer
1	Medical Services Administrator
14	Firefighter/ Paramedics
13	Firefighters / EMTs
22	Part-time Firefighters / EMTs
6	Administrative Staff
9	Mechanics (regional mechanical shop program)

Table 1-0-3: Snohomish County Fire Protection District #3 2013 Equipment Inventory

Unit Name	Unit #	Year	Make	Model	Use
A31	336	2005	Ford	E-450	Ambulance
A31A	337	2005	Ford	E-450	Ambulance
M31	351	2014	Ford	E-450	Ambulance
M32	352	2014	Ford	E-450	Ambulance
M33	338	2005	Ford	E-450	Ambulance
E31	356	2015	Spartan	Spartan ERV	Pumper
E31A	329	2000	Spartan	H&W	Pumper
E32	357	2015	Spartan	Spartan ERV	Pumper
L31	325	1996	Simon	LTI	Aerial
BR31	333	2000	Ford	F-450	Brush

BR31A	349	2010	Ford	F-350	Brush
T31	344	2010	International	Custom	Tender
CH31	340	2008	Chevrolet	Tahoe	Staff
AC31	347	2004	Ford	Expedition	Staff
FM31	328	1998	Ford	Expedition	Staff
TN31	330	2000	Ford	Expedition	Staff
MSA31	343	2008	Ford	Escape	Staff
IN31	342	2008	Ford	Escape	Staff
BT31					
BT32					
U31B	310	1991	Ford	Explorer	Staff
U31D	317	1995	Ford	Taurus	Staff
U31A	318	1995	Chevrolet	Suburban	
U31C	332	2001	Ford	F-350	Passenger Van
TR31	334	1985	GMC	Top Kick 7000	
B31	339	2008	Chevrolet	Suburban	
U31	341	1991	Ford	F-250	Squad
SV31	345	1992	Chevrolet	K1500	
SV31A	346	1998	GMC	W4500	Shop truck
SV31B	348	2009	Ford	F-350	Shop truck
Pirsch	Pirsch	1936	Pirsch	Pumper	Museum piece

Current Demand

In 2014 the department responded to 3430 incidents (average of 9.4 incidents per day). This incident volume is down 15% from 10 years ago when the department also provided paramedic service to Snohomish and areas east of Sultan. Seventy percent of incidents were emergency medical service (EMS) incidents.

The level of service provided by the fire department is based upon a resolution adopted by the Board of Fire Commissioners of Snohomish County Fire District # 3 in 2006 (Resolution 7-2006), declaring that 90% of the time response (travel) times shall be 5 minutes or less in the city of Monroe, and that 90% of the time response (travel) times outside the city of Monroe shall be 8 minutes or less. This resolution was amended by Resolution 2009-2 in 2009.

Projected Demand

In 2009 the department contracted a fire station location study to identify the ideal locations for additional fire stations. Utilizing the response standards first adopted in Resolution 7-2006 and historical incident location data, it was determined that 3 additional fire stations are necessary in order to provide 99% of the entire fire district with a travel time of 8 minutes or less.

Projected Needs

In 2009 the department contracted a fire station location study to identify the ideal locations for additional fire stations. Utilizing the response standards first adopted in Resolution 7-2006 and historical

incident location data, it was determined that 3 additional fire stations are necessary in order to provide 99% of the entire fire district with a travel time of 8 minutes or less.

The fire district anticipates an increase in demand for service as the economy recovers from the economic depression which began in 2008. In order to achieve desired level of service, the fire district hopes to be able to acquire land to construct three new fire stations over the next 20 years. The station location study identifies these general locations as being ideal:

- Station 33 – located on the north side of SR 2 between Roosevelt Rd and Chain Lake Rd.
- Station 34 – located south of Monroe in the Tualco Valley.
- Station 35 – located near the intersection of Florence Acres Rd and Old Owen Rd.

SCFPD3 does not usually project capital facilities needs for fire protection services over a 20-year period due to economic uncertainties, changing technology, expansion of service areas, etc. However, the fire district desires to fulfill the recommendations of the fire station location study. Additionally, the district has been focusing on training and cultural modifications to achieve a safe and rapid deployment of personnel out of the station and into apparatus in order to reduce total response time.

Table 1-0-4: Capital Cost of Each New Fire Station

Expense Item	Cost	Annual Cost*
Fire Station (building and land)	$ 5,000,000	$ 415,315
Apparatus		
Fire Engine (equipped)	$ 636,000	$ 49,838
Medic Unit (equipped)	$ 180,000	$ 14,951
Personnel		
(3 per shift)		$ 1,100,000
Materials, services, and other support		$ 35,000
TOTAL	**$ 5,816,000**	**$ 1,615,104**

*Station and apparatus annual cost based upon annual debt service for a 20 year GO bond, semi-annual payments at 5.5 percent interest.

Source: Fire District #3, 2015

Police Facilities

Current Demand

In 2014, the Police Department had 27,265 calls for police services. This resulted in 34,877 officer responses which is an average of 96 officer responses in our City every day of the year. Responses to calls for service have increased steadily over the last three years. The goal of the department is to maintain a response time of under 3 minutes to "in progress" emergency calls.

With increased calls, the investigative caseload for officers has increased. Given the predicted retail and residential growth, it is expected to continue to rise. Our department has an added responsibility of responding to calls for service at the Washington State Reformatory. These calls are typically assaults, drug/contraband being brought into the prison, warrants to more egregious felony crimes. Another unique workload of our department is the volume of traffic that comes to our City to shop or travel to

the eastside of the state. State Route 2 is one of a few highways considered a major route to the east side of the states, traveling through the Cascade Mountains. State Route 2 is also a part of a "Traffic Safety Corridor" as designated by the Washington Traffic Safety Commission. The majority of the collisions we investigate occur on this stretch of highway.

While Patrol Officers respond to the day to day calls for service, we also have a ProAct Team. This team targets prolific criminals in our community that involve felony levels crimes including burglary, robbery, theft, trafficking in stolen property, and drug dealing.

Our Investigations Unit is responsible for performing investigative tasks including investigating major crime scenes, writing and serving search warrants, obtaining evidence, following up on cases initiated by patrol officers, interviewing victims and suspects, and other criminal case processing. They also administer our Electronic Home Detention Program.

Our administrative staff provides a variety of services to the public. Citizens call or come into the department requesting copies of their cases, seeking an officer, requesting assistance with domestic violence paperwork, etc. We also offer fingerprinting that is electronically submitted, process Concealed Pistol License permits and inspect car seat installs and/or inspect for safety concerns. The number of public records and fingerprint requests has nearly doubled in the last five years.

Projected Demand

Assuming that calls for service are related to residential increases, daytime traffic loads and retail growth we expect continued public demands for our department's services. The City continues to develop the North Kelsey retail area and new public housing is in the construction phase. The growth in retail has increased the number of responses to shoplifts and other related retail theft. The department has recently formed an organized retail theft group to combat this growing problem.

We also anticipate the increasing requests for public records to continue. These requests are becoming more complex with technology that continues to evolve for law enforcement.

Projected Needs

Areas of concern in the current facility are the training room and investigations area. The training room is not adequate to meet the needs of the department. This room is used for quarterly department training, defensive tactics and meetings. The building which was built in 1991 was designed to allow for easy expansion of the training room.

To accommodate an additional investigator, the investigation's unit must be increased to handle major crimes and support patrol with felony investigations. This would require additional space to handle another position.

The department also has a staffing need on the ProAct team. An additional officer is needed to bring this team to 3 officers and a Sergeant. This would allow the team to have the recommended number of staff to conduct effective investigations.

The additional officers requested would increase the patrol teams to meet the demands of the citizens and continue to maintain a response time of under 3 minutes to "in progress" emergency calls.

Administrative staff needs:

1. A full time front desk person to receive phone calls and walk in customers.
2. A domestic violence liaison for the department.
3. Crime analyst to support patrol/investigative functions
4. Additional administrative support to assist with public records requests.

In order to support the growth in the City of Monroe, and to provide effective services, it is anticipated that the Monroe Police Department will need to hire additional personnel as outlined below. This will fill unfunded vacancies that occurred in 2008 – 2010 where City wide layoffs occurred.

Table 1-0-5: Projected Staffing Needs Police Department

Year	Commissioned Personnel	Civilian Personnel
2016	1	1
2017	2	1
2018	1	1
2019	0	1
2020	0	0
2021	0	0

The commissioned staffing recommendations would require additional vehicles added to our fleet, a detective's vehicle and two patrol vehicles.

Table 1-6: Projected 6-year Police Facility Capital Improvements 2016-2021

Description	Cost	Fund
Increase training room	$250,000	General Fund
Additional tables and chairs for increased training room	$ 20,000	General Fund
Redesign locker room/investigations/temp evidence/armory	$ 50,000	General Fund
Storage	$ 10,000	General Fund
3 additional vehicles	$110,000	General Fund
Remote office site – North Kelsey	$ 5,000	Retail Partnership/General Fund
Total	**$445,000**	

Local Option Sales Tax

In August of 2013, the citizens approved a 1/10 of 1% sales tax to be used for law enforcement purposes effective January 1, 2014.

Schools

The City of Monroe adopts by reference the Monroe School District Capital Facilities Plan. Monroe School District's Capital Facilities Plan (CFP) is intended to provide the District, City of Monroe, Snohomish County and other jurisdictions with a description of facilities needed to accommodate

projected student enrollment at acceptable levels of service over the next 21 years (2014-2035), as well as a more detailed schedule and financing program for capital improvement over the next six years (2014-2019). In accordance with the Growth Management Act, this CFP contains the following required elements:

- An inventory of existing capital facilities owned by the School District, showing the locations and capacities of the facilities.
- A forecast of the future needs for capital facilities owned and operated by the School District.
- A six-year plan for financing capital facilities within projected funding capacities, which clearly identifies sources of public money for such purposes.
- The proposed locations and capacities of expanded or new capital facilities.

The Growth Management Act also requires reassessment of the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent. The Capital Facilities Plan is intended to provide local jurisdictions with information on the District's ability to accommodate projected population and enrollment demands anticipated through implementation of various comprehensive plan land use alternatives.

Summary of School Demand and Needs

The most significant issues facing the Monroe School District in terms of providing classroom capacity to accommodate projected demands are aging school facilities, the rate of student growth, the availability and affordability of suitable school sites, including appropriate soils for septic systems, access to water and the geographic constraints associated with the increased student population.

The District is currently in the process of evaluating projected usages and use possibilities for the District office, Marshall Baseball Field and the Memorial Stadium. These properties do not directly affect student housing.

The consolidation of three middle schools into two sites and the conversion of the third site to house the Sky Valley education program would reduce space available for growth. When the District experiences significant growth, housing of students would quickly become a critical issue.

The total number of students projected for the Monroe School District in 2035 is 7,434 using the ratio method as adopted in the School District's Capital Facilities Plan. Growth is occurring throughout the District, with most of it occurring within and north of the City of Monroe. Long-range projections indicate a capacity deficiency at the elementary school level by 2035.

Impact Fees

In addition to the CFP elements required by the Growth Management Act, the School District's CFP provides supporting documentation for the variables used to calculate development impact fees. The Monroe City Council will establish the school impact fees for residential development based on the school capital facilities fees for the school district in which the development is located. The City declines to adopt the proposed impact fee schedules contained in the school facilities plans, disclaims any binding effect of the proposed impact fee schedules contained in the school facilities plans and will establish the percentage discount, if any, in and through its School Impact Fee ordinance (Chapter 20.07 of the Monroe Municipal Code).

Power, Telecommunications, Natural Gas, and Solid Waste

Power

The Snohomish County Public Utilities District No. 1 (PUD) provides electricity to all of the Monroe planning area. The PUD uses a looped transmission system to distribute electrical power throughout Snohomish County. Approximately 80 percent of the electricity supply in Snohomish County originates from the Bonneville Power Authority (BPA). In the Monroe area, the closest BPA substation is located in Snohomish, where power is taken off the transmission system for local distribution. The PUD also operates a 112 MW generating hydropower plant, the M Jackson Project, at Spada Lake to augment the BPA supply.

Electricity is supplied to the Monroe area by 115,000 volt transmission lines located along the SR-2 right-of-way. The transmission lines serve a system of two distribution substations that reduce the voltage to 12,470 volts. From these substations extend 12,470-volt distribution feeder lines running along local streets. Transformers then further reduce the voltage to 120/240 volts for distribution to residents or to 480 volts for commercial and industrial users.

Electric load forecasting and facility planning is conducted by the PUD as part of its regular planning and management operations. The peak load typically experienced on cold winter days is primarily a design consideration in planning new generation, transmission, and the larger distribution facilities. The PUD also considers population forecasts from the Puget Sound Regional Council (PSRC) and the Washington Office of Financial Management (OFM) for electric load forecasting.

The two PUD substations in Monroe include the West Monroe substation (located near Valley General Hospital and the Fryelands Industrial Park) and the Woods Creek substation. The West Monroe substation has a capacity of 56 MVA (units of electrical capacity) and the Woods Creek substation has a capacity of 28 MVA.

All new line construction in the City will be done through underground wiring. This is a city code requirement.

Puget Sound Energy (PSE) also owns and maintains a transmission facility in the City of Monroe that transports electricity through the city. This line, known as the Anderson Canyon-Beverly 115kV transmission line, is located in a utility corridor that extends east-west, generally paralleling the Burlington Northern-Santa Fe railroad line and State Route 2. This transmission line serves the energy needs of areas to the north and south of Snohomish County by bringing power west from the Rock Island Dam, located near Wenatchee. Under certain conditions, PSE's transmission line can support the local distribution by providing emergency back-up to Snohomish County PUD's system.

PSE also has an undeveloped corridor that extends in an east-west direction in North Monroe, which is reserved for future use. PSE's vacant corridor could ultimately accommodate a total of two (2) overhead 230 kV transmission lines, and possibly one (1) 115 kV line. The easement is approximately 100 feet in width and was purchased in the 1930s. See the Figure UT-1 for the approximate location of the subject undeveloped corridor.

Natural Gas

Puget Sound Energy (PSE) supplies natural gas to five Western Washington counties: Snohomish, King, Pierce, Thurston, Kittitas, and Lewis. PSE is an investor-owned utility that was formed in 1996 by the merger of Washington Natural Gas Company and Puget Sound Power & Light Company. The Washington Utilities and Transportation Commission and the Federal Energy Regulatory Commission regulate PSE.

Natural gas is supplied to PSE's system via the Williams Northwest Pipeline. Natural gas moves from wells in Canada and the Rocky Mountain region through the Northwest Pipeline, which consists of two pipelines: (1) 26-inch line and (1) 30-inch line. These transmission lines run in a north-south direction through Washington State and are interconnected with high-pressure lateral lines that move gas to the east and west. The City of Monroe is served via the "Grotto" lateral, which is fed from two connection points on the lateral: the Monroe Gate Station located on 179th Avenue SE and the regulator station located south of the intersection between Brown Road and Chain Lake Road.

PSE's distribution system generally consists of the following components:

- Gas Supply Mains: Usually larger diameter steel wrapped mains (8 inches and greater) designed to operate at higher pressures (over100 psig) to deliver natural gas from the supply source to pressure reducing stations (district regulators).
- Pressure Reducing Stations: Includes district regulators, which are located at various locations throughout the system to reduce pressure to a standard distribution operating pressure of approximately 60 psig.
- Distribution Mains: Pipes that are fed from district regulators. These mains vary in size (usually less than 8 inches in diameter) and material (typically polyethylene).

Extension of natural gas service is based on customer requests followed by financial analysis to determine if revenues from an extension will offset the cost of construction.

Since natural gas can be less expensive to the end user than electric service, natural gas has become the fuel of choice for many residents, homebuilders, and businesses. The average energy use for residential customers is 50 cubic feet per hour during winter hearing months. Energy use from office, commercial, and industrial customers varies. The addition of new hookups will trend similar to the residential and commercial growth rate within the city, since the majority of developers request natural gas service.

As part of system maintenance and expansion, PSE will propose projects that usually fall into one of the following categories:

- System reinforcement – required to supplement the existing system and improve reliability.
- Main replacement – to upgrade existing pipe that is either worn out or undersized, in order to improve system reliability.
- Relocation or replacement – facilities must sometimes be adjusted to accommodate city or state improvement projects.
- Provision of New Service – facilities added to serve new development or customers converting from another fuel source.

It may be necessary to construct new infrastructure to serve Monroe's growth in demand for natural gas. Additional new gas facilities or upgrades to existing lines may be needed in order to deliver gas to customers and maintain system reliability. These new lines would be located within existing public right-of-way or on easements as conditions dictate.

Telecommunications

Verizon provides Monroe with local and long-distance telephone. Verizon is the Incumbent Local Exchange Carrier of telecommunications services in Snohomish County. Verizon serves all communities in Snohomish County through a 100% digital switching network supported with a mix of fiber optic and copper cable.

Fiber optic cable connects all Verizon switching offices in the county and is used for transport of data and voice traffic around the county and out to the rest of the world. A majority of the fiber system is redundantly routed which makes the network self-healing in the event of a cable cut, ensuring continuity of service.

The City of Monroe is now served by a variety of wireless communication service providers, with arrays of cell sites using FM radio signals to transmit conversations and data to mobile/portable phone users. Cell sites consist of transmitting and receiving equipment, microwave relays, usually mounted on a monopole, lattice tower, or whip or panel antennas constructed on buildings and utility poles, and associated ground mounted switching equipment.

The City of Monroe recently adopted new development regulations to regulate the location and development of wireless communication facilities within the city's corporate limits. The new regulations are consistent with the Telecommunications Act of 1996, and are located within Title 18 (Zoning) of the Monroe Municipal Code.

Comcast provides cable television service throughout all of the Monroe planning area. In addition to the basic cable service, Comcast also provide the following products: digital cable, On Demand, Digital Video Recorder (DVR), High Definition Television, High-Speed Intent, and residential phone service in limited areas. Comcast's digital cable provides consumers with more choices and up to 250 channels. The digital cable also includes interactive features such as on-screen program guide and parental controls. Comcast launched this service in 1998.

The On Demand service allows customers to select from more than 3,000 programs that can be enjoyed at any time. This service also allows customers to rewind, fast-forward, and pause programs. The On Demand service became available in 2004, but may not be available in all areas.

Digital Video Recorder (DVR) service lets customers record, store their favorite programs. This service is the same as provided by Tivo. This service also allows a customer to program one show while watching another at the same time. Comcast launched this service in 2003, and may not be available in all areas.

High Definition Television (HDTV) features improved, high quality detailed picture quality, improved audio, and the ability to enjoy wide-screen, theater like displays. Comcast provides HDTV for local

affiliates of most major broadcast networks, as well as several other optional channels. This service is available for customers with HDTV-capable television sets with Comcast's digital cable set-top box. This service became available in 2001, but may not be available in all areas.

The United States Department of Defense's Advanced Research Projects Agency (DARPA) created the Internet in 1969. This project linked computers at Stanford, UCLA, UC Santa Barbara, and the University of Utah so that artificial intelligence researchers at the above schools could collaborate on the projects funded by the military. Throughout the 1980s as technological advances made high speed computers more accessible to the general public, the Internet was still only used by a few. This changed in the 1990s with the creation of the World Wide Web (WWW) and high-speed personal computers.

There are three primary ways to access the Internet in the City of Monroe: dial-up, Broadband, and Digital Subscriber Lines (DSL). Dial-up services are available to anyone who has access to telecommunication services. Broadband or high-speed Internet connections are available through cable, which is provided by Comcast within Monroe. DSL is currently provided by Verizon in Monroe.

In addition to the three primary Internet access modes, there are three additional methods that are becoming popular with advances in technology: Wireless Fidelity (Wi-Fi), Evolution Data Only (EVDO), and satellite. The Wi-Fi technology is similar to cellular phone technology and allows a customer to send and receive information anywhere within the range of a base station. According to the Wi-Fi Alliance, the typical range from a computer to a base station is generally 75 to 150 feet in a typical home or office and up to 1,000 feet in an open environment. The Wi-Fi network technology is call IEEE (Institute of Electrical and Electronic Engineers) 802.11 and operates in the unlicensed 2.4 and 5 GHz radio bands as opposed to cable or telephone lines. Wi-Fi Internet connections have become very popular for small businesses and can be found in many public places including coffee shops and internet bars around the world.

The EVDO or wireless broadband Internet access uses the same technology as wireless communication facilities. This form of Internet access requires wireless companies to buy additional spectrum and update cell tower in their networks to operate the Internet software. Unlike the Wi-Fi technology, the EVDO access does require an Internet user to remain within a specified distance from a base station. This technology allows users to access their email; download large files, and real time videos at DSL speeds. In 2005 there are only two companies that provide or are in the process of providing this service: Verizon and Sprint. This technology is also becoming available for cell phones.

Finally, satellite technology does not require a phone line or dial up data modem, but rather relies on a satellite dish. This technology is provides a similar product to the various high-speed Internet connections listed above, but at a more expensive cost. The primary satellite provider in the United State is DirectWay.

Solid Waste

The Washington Solid Waste Recycling and Recovery Act (RCW (70.95) requires each county within the state, in association with the cities and towns located within it, to prepare a 20-year comprehensive solid waste management plan (CSWMP) and to update the plan at least every 5 years. Snohomish

County is the solid waste management planning authority for all jurisdictions within the County as of the most recent Interlocal Agreement.

The County Solid Waste Management Plan (CSWMP) was adopted by participating jurisdictions, including the City of Monroe, and the County Council in February 1990. The most recent version of the CSWMP was adopted in January 2004. The Interlocal Agreements entered into in 2004 will maintain the unity and coherency of the County solid waste management system through 2023.

The City of Monroe has a contract with Waste Management to collect residential and commercial garbage within the city's corporate limits. Once the garbage is collected it is taken to one of Snohomish County's four transfer stations, compacted and reloaded onto trucks that takes the materials to Rebanco's facility in Seattle. The garbage is finally sent to a landfill in Kittitas County.

Waste Management has regional offices in Portland, Oregon, with local offices in Woodinville, Washington. The city generally enters into five-year contracts with a specific vendor to provide solid waste collection serves.

The City of Monroe has a contract with Waste Management to collect recycling materials and yard waste. Materials that can be recycled include, but are not limited to, tin cans, glass, paper, cardboard, newspapers, magazines, and plastics. The city requires all residential uses, including multi-family complexes, to pay for recycling services. Recycling services are not required for commercial uses; however, if a business owner is interested in a recycling program, they may use any vendor providing recycling services within the city.

Capital facilities financing

The six-year capital facilities plan includes improvements that the comprehensive plan elements indicate are necessary, along with potential funding sources. In order to identify these potential funding sources, it is important to review how capital improvements have been financed in Monroe in the past. Capital outlays tend to vary a great deal from year to year, depending on need and the ability of the City to secure grants to fund particular projects.

Multi-use revenue sources

Multi-use revenue sources include taxes, fees and grants that may be used for virtually any type of capital facility, subject to certain restrictions if dedicated as such during their formation. They include:

- **Property tax –** Property tax revenues are most often used for operations and maintenance. Since passage of Initiative 747, the maximum property tax increase is 1 percent per year or the Implicit Price Deflator, whichever is less. Prior to Initiative 747, property taxes could increase a maximum of six percent per year, a rate that closely matched the prevailing rate of cost increases. State law authorizes temporary lid lifts on property taxes, but they must be dedicated to the funding of particular projects. Monroe's general policy guiding distribution of property tax revenue has been to its share of fire district operations, street improvements, and to general government.
- **Long-term bonds –** Three types of long-term bonds (general obligation bonds, revenue bonds and special assessment bonds) are used by municipalities to fund capital improvement projects.

The general obligation bonds are backed by the value of the property within the jurisdiction. General obligation bonds are either approved by a vote of the electorate or by council action, with these "councilmatic" bonds limited in the amount that can be borrowed. Revenue bonds are backed by the revenue received from the project that the bonds helped to fund. These bonds often fund utility improvements, where ratepayers repay the debt. Special assessment bonds – like local improvement districts, road improvement districts and utility local improvement districts – are repaid by special assessments levied on property benefiting from the improvements.

- **Real estate excise tax (REET) –** Local governments can collect up to 0.50 percent of the selling price of real estate within city limits. Revenues collected must be dedicated to specific capital projects identified in the City's capital facilities plan.
- **Business and occupation tax (B&O) –** Upon voter approval, cities can collect up to 0.2 percent of gross or net income of businesses within city limits, and the revenue may be used for a variety of capital facilities acquisition, construction, maintenance and operations. Monroe does not impose a B&O tax.
- **Local option sales tax –** Monroe has enacted a one-percent sales tax, based on voter approval. Eighty-five percent of the proceeds go to the City, and 15 percent goes to Snohomish County.
- **Utility tax –** Service users can pay up to six percent of their electrical, natural gas, telephone, and cable TV utility fees in their utility bills. There is no upper limit on tax assessments on water, wastewater, solid waste, and storm water management fees. Monroe charges a six percent tax on cable TV, natural gas, telephone, water, and electricity.
- **Community development block grants (CDBG) –** Approximately $8.5 million in community development block grants (CDBG) funding is available annually statewide through the federal Department of Housing and Urban Development for public facilities, economic development, and housing projects that benefit low-and moderate-income households. Funds may not be used for maintenance and operations.
- **Community Economic Revitalization Board grants (CERB)** – The State Department of Commerce provides low-interest loans, and occasionally grants, to finance sewer, water, access roads, bridges, and other facilities for specific private sector development. Funding is available only for projects that support specific private developments or expansions that promote the trading of goods and services outside the state. The average requirement is to create one job per $3,000 of CERB financing. The City has not used CERB funds.
- **Public Works Trust Fund grants (PWTF) –** The State Department of Commerce provides low-interest loans for capital facilities planning, emergency planning, and construction of bridges, roads, domestic water, sanitary sewer, and storm sewer. Applicants must have a capital facilities plan in place and must be levying the real estate sales tax. Construction and emergency planning projects must be for reconstruction of existing capital facilities only. Capital improvement planning projects are limited to planning for streets and utilities. Monroe has borrowed PWTF money to fund construction of the Ingraham Hill and North Hill reservoirs.
- **Farmers Home Administration community facilities program –** Farmers Home Administration loans to develop community facilities for public use in rural areas and towns of not more than 20,000 people. Facilities eligible for loan assistance include fire stations, police stations, community buildings, libraries, and utilities.

Single-use revenue sources

Single-use revenue sources include taxes, fees and grants which are dedicated to a single type of capital facility or infrastructure investment. There are many single-use revenue sources, summarized in the table below.

Source	Description
Special-purpose districts	RCW 67.38.130 authorizes cultural arts, stadium/convention special purpose districts with independent taxing authority to finance capital facilities. The district requires a majority voter approval for formation, and has a funding limit of 0.25 cents per $1,000 of assessed valuation.
EMS levy	The state authorizes a $0.50 per $1,000 AV property tax levy that may be enacted by fire and hospital districts, cities and towns, and counties. Fire District #3 was approved for a permanent levy and levied .43/$1,000 assessed value in 2005 to fund EMS services.
Fire districts	Fire District #3 surrounds and includes Monroe. The levy is used for operations and maintenance costs.
Fire impact fees	RCW 82.02.050-090 authorizes a charge (impact fee) to be paid by new development for its —fair share of the cost of fire protection and emergency medical facilities required to serve the development. Impact fees must be used for capital facilities necessitated by growth, and not to correct existing deficiencies in levels of service. Impact fees cannot be used for operating expenses. Monroe does not currently collect fire impact fees.
Open space and park facility general obligation bonds	The total amount of local government debt that may be committed to open space and park facilities is 2.5 percent. Monroe currently does not have any open space and park facility general obligation debt.
Park districts	State law authorizes metropolitan park districts and park and recreation districts, each with independent taxing authority. Monroe presently is in a park and recreation district, whose boundaries are the same as the school district's boundaries.
Park and recreation service area (PRSA)	RCW 36.68.400 authorizes park and recreation service areas as junior taxing districts for the purpose of financing the acquisition, construction, improvement, maintenance, or operation of any park, senior citizen activity center, zoo, aquarium, or recreational facility. The maximum levy limit is 0.15, or $0.15 per $1,000 AV. A PRSA can generate revenue from either the regular or excess property tax levies and through general obligation bonds, subject to voter approval. Revenue may be used for capital facilities maintenance and operations. Voters approve formation of a PRSA, and subsequently approve an excess levy for the purpose of constructing facilities.
User fees and program fees	These fees are charged for using park facilities (such as field reservation fees) or participating in recreational programs (such as arts and crafts registration fees).
Park impact fees	RCW 82.02.050-090 authorizes local government to enact impact fees to be paid by new development for its —fair share of system improvement, costs of parks and recreation facilities necessary to serve

	the development. Impact fees must be used for capital facilities necessitated by growth, and not to correct existing deficiencies in levels of service. Impact fees cannot be used for operating expenses. Monroe uses a park impact fee (mitigation) program.
State Parks and Recreation Commission grants	These grants are for parks, capital facilities acquisition, and construction, and require a 50 percent local match. Monroe currently has no state parks or recreational commission grants.
Recreation & Conservation Office grants-in-aid	The WA Recreation and Conservation Office (RCO) provides grant-in-aid funding for the acquisition, development and renovation of outdoor recreation facilities. Park and boating program grants require 50% local match. This was previously known as the Interagency Commission for Outdoor Recreation (IAC).
Motor vehicle fuel tax	RCW 82.36 authorizes this tax, which is administered by the state Department of Licensing and paid by gasoline distributors. Cities and counties receive 11.53 percent and 22.78 percent, respectively, of motor vehicle fuel tax receipts. Revenues must be spent for ―highway purposes‖ including the construction, maintenance, and operation of city streets, county roads, and highways.
Local option fuel tax	RCW 82.80 authorizes this countywide local option tax equivalent to 10 percent of the statewide motor vehicle fuel tax and a special fuel tax of 2.3 cents per gallon. Revenues are distributed back to the county and its cities on a per capita basis (1.5 for population in unincorporated areas and 1.0 for population in incorporated areas). Revenues must be spent for highway purposes.
Commercial parking tax	RCW 82.80 authorizes a tax for commercial parking businesses, but does not set rates. Revenues must be spent for general transportation purposes, including highway purposes, public transportation, high-capacity transportation, transportation planning and design, and other transportation related activities. Monroe does not now assess this tax.
Transportation benefit district	RCW 35.21.225 authorizes cities to create transportation districts with independent taxing authority for the purposes of acquiring, constructing, improving, providing, and funding any city street, county road, or state highway improvement within the district. A special district's tax base is used to finance capital facilities. Monroe instituted a transportation benefit district in 2014.
Road impact fees	RCW 82.02.050-090 authorizes cities and counties to exact road impact fees from new development for its ―fair share‖ of the system improvement costs of roads necessary to serve the development. Impact fees must be used for capital facilities necessitated by growth and not to correct existing deficiencies in level of service. Impact fees cannot be used for operating expenses.
ISTEA and its successors	These federal surface transportation act funds are channeled through PSRC and WSDOT. PSRC distributes its federal transportation funds through the Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), and Federal Transit Administration (FTA) programs. WSDOT distributes federal transportation funds through

	the National Highway System (NHS) program and the Federal Aid Bridge Replacement Program.
Federal aid emergency relief grants	WSDOT provides funding for restoration of roads and bridges on the federal aid system that are damaged by natural disasters or catastrophic failures. Funds are available on an 83 percent federal/17 percent local matching basis. Monroe does not qualify for an emergency relief grant at this time.
Urban Arterial Trust Account grants (UATA)	The Washington State Transportation Improvement Board (TIB) provides funding for projects to alleviate and prevent traffic congestion. In order to be eligible, roads should be structurally deficient, congested by traffic, and have geometric deficiencies, or a high incidence of accidents. Funds are awarded on an 80 percent federal/20 percent local matching basis.
Transportation Improvement Account grants (TIA)	The TIB provides funding for projects to alleviate and prevent traffic congestion caused by economic development or growth. Eligible projects should be multi-agency, multi-modal, congestion, and economic development-related, and partially funded locally. Funds are awarded on an 80 percent/20 percent local matching basis.
Sewer districts	Monroe has no sewer districts.
Sewer user fees	The state authorizes cities, counties, and special purpose utility districts to collect fees from wastewater generators. Fees may be based on the amount of potable water consumed, or may be flat fees. Revenues may be used for capital facilities or operating and maintenance costs.
System development charges/connection fees	The state authorizes a fee to connect to a sanitary sewer system based on capital costs of serving the new connection.
Centennial Clean Water Fund	The Department of Ecology (DOE) issues grants and loans for the design, acquisition, construction, and improvement of water pollution control facilities and related activities to meet state and federal requirements to protect water quality. State grants and loans are available based on a 25 to 50 percent local matching share range.
State revolving fund loans	DOE administers low-interest loans and low-interest guarantees for water pollution control projects. Applicants must demonstrate water quality need, have a facility plan for water quality treatment, show ability to repay a loan through a dedicated source of funding, and conform to other state and federal requirements. Funds must be used for construction of water pollution control facilities (such as wastewater treatment plants and storm water treatment facilities).
DOE solid waste grants	The state awards grants to local governments for a variety of programs related to solid waste, including a remedial action grant to assist with local hazardous waste sites, moderate risk/hazardous waste implementation grants, and waste composting grants.
Flood control special purpose districts	RCW 86.15.160 authorizes flood control special purpose districts with independent taxing authority (up to a 50 cents property tax levy limit without voter approval) to finance flood control capital facilities. In addition, the district can, with voter approval, use an excess levy to pay for general obligation debt. Monroe does not have a flood control special district.

Storm drain utility fee	The state authorizes cities and counties to charge a fee to support storm drain capital improvements. The fee is usually a flat rate per residential equivalency. Residential equivalencies are based on average amount of impervious surface. Commercial property is commonly assessed a rate based on a fixed number of residential equivalence or area of impervious surface. Monroe adopted a storm drain utility in 1996, with a $6.00 assessment per dwelling or equivalent residential unit.
Water districts	Four water providers serve portions of the Monroe planning area including Highland District, Roosevelt Association, Sky Meadow Association, and City of Monroe. Water districts have independent taxing authority, with a property tax levy limit of 50 cents per thousand of assessed value. Tax revenue is restricted to uses related to the purpose for which the water district was created. Monroe has acquired Sky Meadow and Roosevelt Association.
Water user fees	The state authorizes cities, counties, and special purpose utility districts to charge for water consumption, usually based on volume of water consumed. Revenue may be used for capital facilities, operations and all maintenance.
Farmers Home Administration Water and Waste Development Program	Farmers Home provides financial assistance for water and waste disposal facilities in rural areas and towns. Priority is given to areas smaller than 5,500 people to restore deteriorating water supply, or to improve, enlarge or modify a water facility or an inadequate waste facility.
Department of Health water grants	State grants available for upgrading existing water systems, ensuring effective management, and achieving maximum conservation of safe drinking water. Grant funds can be used for technical assistance for upgrading current water systems.