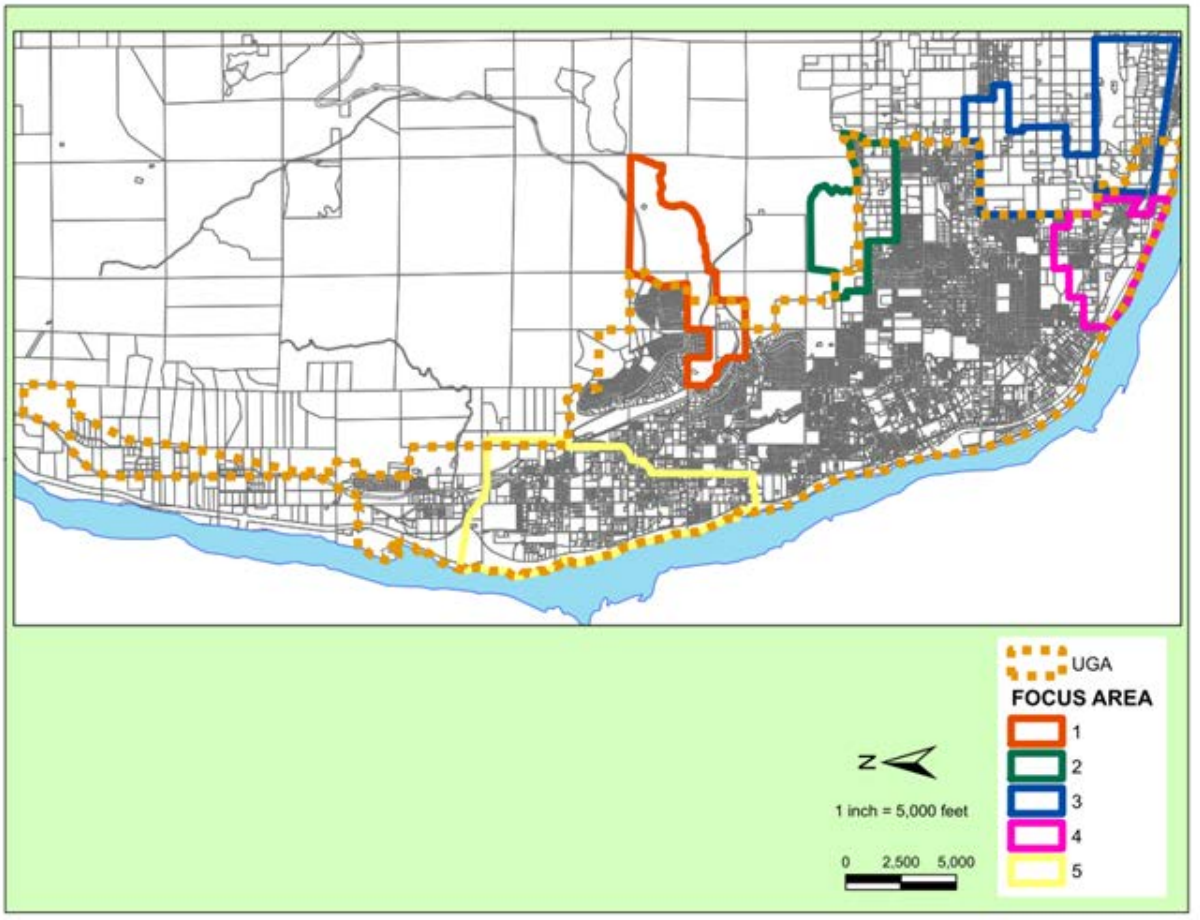
Appendix B
Greater East Wenatchee Area Comprehensive Plan

2013 Combined Capital Facilities Plan

Prepared for City of East Wenatchee and Douglas County



RH2 Engineering, Inc.

June 2013

City of East Wenatchee and Douglas County 2013 Combined Capital Facilities Plan

The information contained in this report was prepared by and under the direct supervision of the undersigned.

Signed
x/xx/2013

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June 2013

Creative Ideas
Innovative Solutions
Quality Service

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City of East Wenatchee and Douglas County

Project Description

This letter report summarizes the work RH2 Engineering, Inc., (RH2) has done to support a combined capital facility plan for the City of East Wenatchee (City) and Douglas County (County).

The City obtained a grant from the Washington State Department of Commerce to:

review, analyze, and combine utility and service provider's capital facilities plan (CFP) to establish a phasing plan to serve the Urban Growth Area (UGA), existing and proposed, and refine the land use designation for UGA expansion using existing community visions, land capacity analysis, capital facilities plans and airport compatibility.

Utility and service providers and associated services include the following:

- City of East Wenatchee – transportation and stormwater
- Douglas County (County) – transportation and stormwater
- East Wenatchee Water District (EWWD) – domestic water
- Douglas County Sewer District (DCSD) – sewer
- Douglas County Public Utility District (DCPUD) – power
- Eastmont School District (ESD) – schools
- Eastmont Metro Parks District (EMP) – parks

Other key stakeholders include the following:

- Pangborn Memorial Airport (PMA) – airport
- Wenatchee Reclamation District (WRD) – irrigation
- Greater Wenatchee Irrigation District – irrigation
- Port of Douglas County (Port) – industrial lands

These utility and service providers and other key stakeholders constitute the steering committee.

Level of Service for Utility and Service Providers

Roads

The City's 2010 Capital Facility Plan states:

As discussed in greater detail in Chapter 7, "Transportation," the LOS for transportation shall be as articulated in "Selected Alternative: Minimum Preservation," Chapter 6 of the Wenatchee Area Transportation Study. In general, this establishes a LOS "D" for East Wenatchee's primary and minor arterials and for its collectors.

Stormwater

The City's 2010 Capital Facility Plan states, "At the present time, no established level of service standard is in place for surface water management in the area."

Chapter 13.10 in The City's Municipal Code incorporates County Code Chapter 20.34, and requires National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit compliance. The County Code requires that "all stormwater runoff shall be retained and disposed of on-site or disposed of in a system designed for such runoff and which does not flood or damage other properties.

Stormwater systems shall be designed by an engineer using the one-hundred-year twenty-four-hour Type II SCS synthetic rainfall event."

Police and Fire Protection

Staffing shall be in accordance with the City's Capital Facility Plan. No specific linkage is given between the number of personnel and the population in that document.

Sewer

Sewer service shall be in accordance with the DCSD 2006 General Sewer Plan (GSP) Update and the Washington State Department of Ecology (Ecology) Publication No. 98-37, Criteria for Sewage Works Design, August 2008 (Orange Book).

Water

Water service shall be in accordance with the EWWD 2006 Water Comprehensive Plan, which references the Washington State Department of Health Water (DOH) System Design Manual.

Parks and Recreation Facilities

The following level of service is reported in the Greater East Wenatchee Area Comprehensive Plan that was adopted April 17, 1996. The wording in this document is extremely similar to the Open Space Plan that the Park Board adopted in 2008.

Regional Parks

Base: These facilities should be designed with the following components:

- Sixty acres or larger, depending on amenities and adjacent facilities.
- Highway or arterial access.
- Connecting paths and trail systems serving community access.

Level of service: None given.

Community Parks

Base: These facilities should be designed with the following components:

- Twenty to 60 acres of recreational open space.
- Arterial road access as needed to serve community.
- Connecting paths serving community access.
- Internal path system.
- Developed and undeveloped open space.

Level of Service: The recommended demand standard is 1.45 acres per 1,000 residents.

Neighborhood Parks

Base: The following are minimum components necessary for neighborhood facilities:

- Five to 15 acres of park land.
- Access from nearby transportation corridors.
- Connecting pedestrian/bike systems to the neighborhood.

Level of Service: Five to 15 acres of park land within a walking distance of 1 mile.

Micro or Mini Park

Base: The following facilities are minimum components necessary for micro parks:

- One half to 5 acres of park land.
- Off street access, with minimal vehicle parking on-site.
- Connecting pedestrian/bike systems to neighborhood areas.

Level of Service: One site of .5 to 5 acres per 750 residents.

Open Space and Conservation Areas

Base: The following facilities are minimum components necessary for open space and conservation areas:

- Located to encompass diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, and topography.
- Off-street access, with minimal vehicle parking on-site.
- Connecting pedestrian/bike systems to neighborhood areas.

Level of Service: 17.3 acres of open space and resource conservancies per 1,000 population.

Resource Parks

Base: The following facilities are minimum components necessary for resource parks:

- Contiguous to or encompassing natural resources, including resource conservancies.
- Easily accessible to several communities with off-street access and minimal vehicle parking necessary.

Level of Service: None given.

Linear Trails

Base: The following facilities are minimum components necessary for linear trails:

- May parallel established vehicular or other transportation systems or natural features extending into the surrounding residential areas.
- May be anchored by public facilities like a school or park development in any of the above park facilities formats.
- Ideally, a minimum trail system should be at least 3 to 5 miles long and provide the ability to loop back to the point of origin.
- Easily accessible to several communities with off street access and minimal vehicle parking necessary.
- Sufficiently wide enough to provide for the type of trail user(s) that it is accommodating, while preserve the features through which the trail is traveling, and buffering adjacent land use activities.

Level of Service: None given.

Athletic Fields and Playgrounds

Base: The following facilities are minimum components necessary for athletic fields and playgrounds:

- May be included within or jointly developed in association with an elementary, middle, or

high school facility.

- Easily accessible and ideally linked to the surrounding area by walking and biking trails and paths
- Regionally oriented athletic sites may include four or more competitive, high-quality soccer, baseball, or softball fields serving organized leagues drawn from a number of surrounding communities or areas, which may include the approximate service area for a high school.
- Local (community or neighborhood) oriented athletic fields and playgrounds may consist primarily of a playground and a grassy play area, possibly including one or more practice or non-regulation athletic field.

Level of Service: None given.

Recreation Centers/Pools

Base: The following facilities are minimum components necessary for centers:

- May be jointly sited with an athletic park or playground, or in association with a library, civic center or other public meeting facility.
- Easily accessible and ideally linked to the surrounding area by walking and biking trails and paths.
- Regionally oriented recreation centers should provide at least 7,500 square feet of indoor building space and, when possible, be jointly shared with school districts or a part of other city or county building complexes.
- Local recreation centers may consist primarily of a single facility use like a classroom or gymnasium complex at least 4,000 square feet.

Level of Service: None given.

Special Use Facilities

Base: The following facilities are minimum components necessary for special use facilities:

- Easily accessible with adequate parking.
- Safety features such as lights and water, as appropriate.

Level of Service: None given.

Mapping

GIS layers were developed for the following elements for the UGA and potential expansion areas. Maps showing these elements are included in **Appendix A**.
General:

- Topographic data (LIDAR)
- Zoning/land use
- Parcel ownership information. Include land capacity mapping.
- Vacant parcels
- Roads
- Parks and golf course
- Schools
- Airport protection zones

Water System:

- Pressure zones
- Fire flow capacity
- Existing capital facilities including wells, pipelines, reservoirs and pumping facilities;
- Wellhead protection areas
- Growth in equivalent residential units (ERU) assumed in development of the EWWD 2006 Water System Plan (WSP).
- Anticipated projects required for deficiencies identified in the WSP, including costs and schedule

Sewer System:

- Sewer basins
- Existing capital facilities including pipelines, lift stations, and force mains
- Growth in equivalent residential units (ERU) assumed in development of the DCSD 2006 General Sewer Plan(GSP).
- Anticipated projects required for deficiencies identified in the GSP, including costs and schedule

Transportation System

- City and County 6-year Capital Improvements Program (CIP) projects

Parks:

- Existing neighborhood parks and general distribution of future neighborhood parks.

Overall Areas of Interest

Five areas of interest (focus areas) were selected as areas of growth to consider for phasing. These areas include the areas identified in the five alternatives for an expanded UGA. These five focus areas are generally shown on **Figure 1**, and in more detail in **Appendix B**.

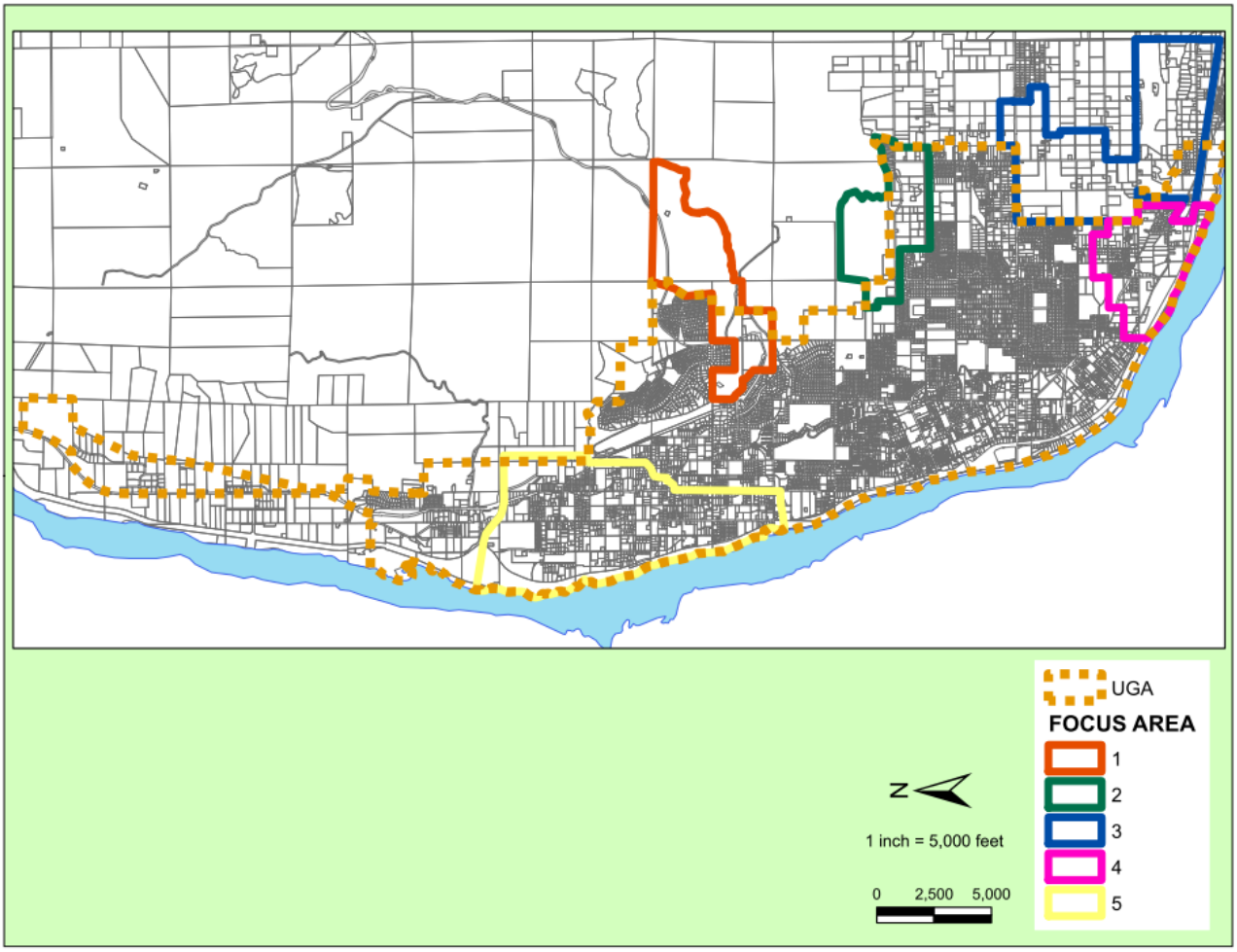


Figure 1 – Focus Areas

Projects previously identified for each area that will be required to provide main trunk line water and sewer service to that area are shown on the maps in **Appendix B**.

Table 1 summarizes the ERU capacity of each focus area based on City and County analysis, including the ERU capacity of all vacant lands in the existing UGA plus the alternative areas identified an expanded UGA. The total number of ERUs in the existing and expanded UGA is equal to the 20-year ERU growth requirement developed in the Greater East Wenatchee Area Comprehensive Plan last updated on March 11, 2013 (see Table 3.6, Residential Land Capacity Analysis). This includes a total of 3,873 new residential ERUs and 581 new non-residential ERUs. **Table 1** also includes the approximate number of developed lots currently on septic systems that may be connected to the sewer system in the future. These should be considered in facility sizing as there is a requirement in the Growth Management Act for sewer facilities to be provided to all properties inside the UGA.

Table 1 – Water and Sewer ERUs

Area	ERU Capacity	Septic Users	Total Sewer ERUs
Focus Area 1	107	5	112
Focus Area 2	588	21	609
Focus Area 3	346	218	564
Focus Area 4	1125	161	1286
Focus Area 5	1869	721	2590
Existing & Expanded UGA	4,454	2,428	6,882

The total ERUs developed for **Table 1** can be compared to the ERU growth assumptions made in the water and sewer comprehensive plans. This comparison is made in **Table 2**. The projected ERUs are the ERU capacities developed by the City and County. The assigned ERUs are what the utility provider used to develop models to determine projects required to provide service.

Table 2 – Projected Versus Assigned ERUs

Area	Projected Water ERUs	Assigned Water ERUs	Projected Sewer ERUs	Assigned Sewer ERUs
Focus Area 1	107	30	112	0
Focus Area 2	588	130	609	0
Focus Area 3	346	390	564	1,170
Focus Area 4	1125	380	1286	1,050
Focus Area 5	1869	1,920	2590	1,330
Existing & Expanded UGA	4,454	6,480	6,882	5,440

Table 2 indicates if the projects shown in the comprehensive plans will adequately meet the projected demands. In the table, for cells highlighted green, it is probable that the planned facilities will meet the projected needs for that utility since the utility planned for more ERUs than the City projected. For the cells highlighted in red, the utilities did not plan for as many ERUs as the County projected. Additional projects may be required in order to serve those areas.

RH2 reviewed the projects listed in the comprehensive plans to determine what, if any, additional projects would be required to serve those areas. For the water utility, it appears that the projects listed will be adequate to serve the additional ERUs shown. For the sewer utility, some upsizing to the proposed projects are required to serve the additional ERUs. A list of the projects needed to serve each focus area is provided in **Appendix C**.

A very rough estimate of cost per ERU to serve each area with water and sewer service is given in **Table 3**. These costs should be assumed to be order of magnitude costs for comparative purposes only. Details of the development of this cost estimate are provided in **Appendix C**. This table includes only water and sewer costs.

The following should be noted regarding the cost per ERU developed for **Table 3**. There are a number of projects that provide service to more than one of the focus areas. The cost per ERU for these overlapping projects has been determined based on the aggregate number of ERUs in all benefited focus areas. Therefore, the focus areas cannot be treated independently.

The focus areas encompass multiple water pressure zones. Typically, each water project listed benefits only one pressure zone. The cost per ERU therefore varies within the focus area, and the cost given is the average cost per ERU. The actual cost attributed to each ERU will therefore actually be higher or lower than the cost reported.

The costs shown are in 2012 dollars. The costs shown in the comprehensive plans may include an inflationary increase.

The total number of sewer ERUs assumes that all septic users will be transferred onto the sewer system within the planning horizon. If only a partial transfer occurs, then the cost per ERU is more than shown.

Table 3 – Cost Per ERU

Area	Water cost per ERU	Sewer cost per ERU	Water Plus Sewer
Focus Area 1	$2,361	$1,893	$4,254
Focus Area 2	$2,485	$1,759	$4,244
Focus Area 3	$4,361	$4,083	$8,445
Focus Area 4	$1,056	$4,083	$5,139
Focus Area 5	$94	$593	$686

The projects related to growth in the focus areas represent only a portion of the capital projects that each utility has planned. The EWWD has a total of $56 million of identified projects in its current CIP. Only $6.7 million is associated with serving these focus areas. Many EWWD projects are directly related to replacing old mains concurrently with planned road improvements. Other projects are required to address total system capacity issues as well as address existing and future deficiencies outside the focus areas.

The DCSD 2005 Comprehensive Sewer Plan does not address improvements related to planned road projects. Those were historically dealt with on a case-by-case basis.. In addition, when the planning was done for the current comprehensive plan, it only included a partial expansion of the service area, it did not address what it would take to serve the entire UGA. It is likely that significant projects not currently identified will be required to serve the UGA.

The capacity of the sewer treatment plant appears to be adequate for the projected 20-year growth. The current capacity of the treatment plant is 16,964 ERUs. DCSD currently serves 9,077 ERUs, leaving a capacity for an additional 7,887 ERUs. The total projected number of new ERUs in the planning period is 6,882. Because the total number of ERUs is projected to exceed 85 percent of the plant capacity in the planning period, DCSD should assume it will need to submit a plan and schedule on how it intends to maintain capacity when this 85 percent threshold is reached in accordance with Ecology requirements.

Overall Phasing Strategy

Based on RH2's review of costs and other considerations, the key stakeholders generally determined that following preliminary phasing plan would generally be followed.

- During the initial 6-year period, an emphasis would be placed on servicing Focus Area 5 at the north end of the existing UGA. The rationale was that this area is already in the UGA and

much of the infrastructure required for development is already in place.

- The water and sewer utilities would continue to coordinate with planned road improvement projects and would try to take advantage of cost savings associated with coordinated projects.
- Other identified improvements would be constructed within the 20-year planning horizon. The specific scheduling of these other projects would be flexible to best accommodate ongoing development initiatives.

Based on this phasing plan, capital improvements will generally include the projects listed in **Appendix C**. The table within the appendix includes projects required for other purposes as presented in the respective plans, with no changes in the projected dates of those projects. Additional planning effort will be required for each of the purveyors in order to refine the projects and their costs, as well as incorporate these projects into their overall plan and obtain approval by oversight agencies.

This phasing strategy can also be utilized for planning purposes by the other stakeholders.

Capital Improvement Plan

A Combined Capital Improvement Plan was developed for each of the five focus areas. The projects required for each service provider is listed in this section. In addition to the five focus areas, a description of the required capital improvements needed that are outside of the five focus areas is also included.

Costs for anticipated transportation projects and new parks have been included. Transportation projects and costs are taken from the City and County 6-year Transportation Improvement Programs (**Appendix C**). EMP does not include any new parks in its existing planning documents. In lieu of a more detailed analysis of future park needs, it was assumed that new 5-acre neighborhood parks costing approximately $600,000 for land and improvements would be spaced to serve an area approximately 1 mile in radius. A map showing the assumed distribution of parks is included in **Appendix A**. Needs for other types of parks have not been addressed.

Stormwater costs will be borne by individual developers as they are required to retain and dispose of all stormwater runoff in a system designed for the runoff and which does not flood or damage other properties. Stormwater facilities associated with roadway improvements are included in the roadway costs.

Focus Area 1

Water

Focus Area 1 includes lands within the EWWD's 1591 and 1770 pressure zones, which are currently supplied by a single pump station. All domestic water capacity is already allocated to developed and pending lots. To increase capacity, a second pump station will be needed to provide redundancy and free up existing reservoir standby storage capacity. A transmission pipeline will also be needed to supply water from the 10th Street reservoirs to Focus Area 1. New reservoir construction will follow, depending on the rate and nature of development. **Table 4** at the end of this section lists the projects the EWWD has identified in its latest CIP to provide the major supply infrastructure.

Sewer

Focus Area 1 includes lands in the Fancher Heights/Sand Canyon area that could be served by the existing Fancher Heights Lift Station. All sewer capacity is already allocated to development and pending lots. To increase capacity, the existing Fancher Heights Lift Station would need to be upsized to handle larger flows. Larger pumps, increased emergency storage capacity and a larger force main are anticipated improvements to increase the capacity of Focus Area 1 by 112 ERUs.

Transportation

Transportation improvements have only been identified for the 6-year planning period. Transportation projects within Focus Area 1 include the realignment of Badger Mountain Road for repair of a slide area.

Power/Fiber

The DCPUD has stated that its currently has infrastructure in place to provide power and fiber service to this area. No additional projects have been identified.

Parks

One additional neighborhood park is anticipated for this focus area.

Table 4 summarizes of the Capital improvements for Focus Area 1 for both the 6 -ear and 20-year planning periods.

Table 4 – Focus Area 1 Capital Projects and Costs

6 Year CIP

Service	Plan Designation	Description	Cost	Other Focus Areas Benefitted
Water	S11	1592 Secondary Transmission	$900,000	2
Water	S12	1592 Pump Station	$750,000	2
Transporation	DC5	Badger Mtn Road Realignment	$4,000,000	
		Total	**$5,650,000**	

20 Year CIP

Service	Plan Designation	Description	Cost	Other Focus Areas Benefitted
Water	S13	1592/1768 Storage	$1,200,000	2
Sewer	LS3	Upsize Fancher Lift Station	$212,000	
Parks		One Neigborhood Parks	$600,000	
		Total	**$2,012,000**	

Focus Area 2

Water

Focus Area 2 includes lands within the EWWD's 1492 and 1591 pressure zones. While there is some existing capacity available, improvements will be needed because much of this area is currently undeveloped and has no infrastructure. Pipeline improvements to increase capacity from the 1492 reservoir will be needed for the lower zone. A pump station and reservoir will be needed to serve the upper zone. **Table 5** at the end of this section lists the projects the EWWD has identified in their latest CIP to provide the major supply infrastructure.

Sewer

Focus Area 2 includes lands within the Summerplace Lift Station benefit area that collects and discharges to the Grant Road trunk line via N Kentucky Avenue. While there is some existing capacity available in the lift station and collection system, improvements will be needed because much of the area is currently undeveloped and has limited infrastructure. Summerplace Lift Station improvements to increase capacity will be needed, as well as an increase in the Grant Road trunk line from N Kentucky Avenue to James Avenue. Additional collectors serving in the area may need to be upgraded; however, those improvements have not yet been identified. Further review of this project will be developed in the DCSD's comprehensive sewer system plan for 2016.

The 24-inch trunk line at the south entry to the waste water treatment plant along State Route 28 (SR 28), which serves focus area 2, 3, and 4, is getting closer to its capacity and will be required to be replaced in the near future (Project No. 5). Modeling results from 2005 indicated that the trunk line would be slightly over capacity in 2012 based on growth projects for the area. It was recommended that the capacity of the trunk line be analyzed in 2012 to determine when the truck line will need to be upgraded. Further review of the project will be developed in the DCSD's Comprehensive sewer system plan for 2016.

Transportation

Transportation improvements have only been identified for the 6-year planning period. Transportation projects with-in Focus Area 2 include the reconstruction of 10th Street between Eastmont and Kentucky Avenues.

Power/Fiber

The DCPUD has stated that it currently has infrastructure in place to provide power and fiber service to this area. No additional projects have been identified.

Parks

No additional neighborhood parks are anticipated for this focus area.

Table 5 summarizes the capital improvements for Focus Area 2 for both the 6-year and 20-year planning periods.

Table 5 – Focus Area 2 Capital Projects and Costs

6 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Water	33	8th St NE or 10th St NE Watermain	$730,000	
Water	S11	1592 Secondary Transmission	$900,000	1
Water	S12	1592 Pump Station	$750,000	1
Sewer	5	SR 28 Truck Line Capacity Increase near WWTP (U5)	$211,000	3,4
Transporation	EW12	10th Street Reconstruction	$5,000,000	
		Total	**$7,591,000**	

6 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Water	S13	1592/1768 Storage	$1,200,000	1
Sewer	7	Grant Road Truck Line Capacity Increase (U7)	$710,000	
Sewer	LS4	Upsize Summerplace Lift Station	$309,000	
		Total	**$2,219,000**	

Focus Area 3

Water

Focus Area 3 (north part) includes lands within the EWWD's 1286 and 1492 pressure zones. While there is existing infrastructure, some improvements will be needed to increase capacity to an urban standard of service. Pipeline improvements to provide a stronger backbone in Nile Avenue will be needed. An upgrade to the Nile booster pump station may also be needed to provide adequate redundancy.

Focus Area 3 (south part) is defined as south of the irrigation canal. This area is in the EWWD's 961 pressure zone. An upgrade to pipeline capacity along Rock Island Road will be needed.

Table 6 at the end of this section lists the projects the EWWD has identified in its latest CIP to provide the major supply infrastructure.

Sewer

Focus Area 3 includes large tracts of agricultural lands south of Grant Road that extend down to SR 28. The area is completely outside the DCSD's existing service area boundary and major infrastructure will be needed to serve this area with sewer. None of the sewer collection area can reach the wastewater treatment plant without a lift station located south of South Kentucky Avenue. Construction of major trunk lines in this area will be necessary but a specific project has not been identified in the DCSD's current CIP. Further review of this project will be developed in the DCSD's Comprehensive Sewer System Plan for 2016.

The 24-inch trunk line at the south entry to the waste water treatment plant along SR 28 which serves focus area 2, 3, and 4, is getting closer to its capacity and will be required to be replaced in the near future (Project No. 5). Modeling results from 2005 indicated that the trunk line would be slightly over capacity in 2012 based on growth projects for the area. It was recommended that the capacity of the trunk line be analyzed in 2012 to determine when the truck line will need to be upgraded. Further review of the project will be developed in the DCSD's comprehensive sewer system plan for 2016.

The DCSD has identified three major lift station infrastructure projects in ITS comprehensive plan required to serve Focus Area 3. All of these projects are also required to serve Focus Area 3.

Transportation

Transportation improvements have only been identified for the 6-year planning period. No transportation projects within Focus Area 3 have been identified for this planning period.

Power/Fiber

The DCPUD has stated that it currently has infrastructure in place to provide power and fiber service to this area. No additional projects have been identified.

Parks

One additional neighborhood park is anticipated for this focus area.

Table 6 summarizes the capital improvements for Focus Area 3 for both the 6-year and 20-year planning periods.

Table 6 – Focus Area 3 Capital Projects and Costs

6 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Water	43 (North)	Nile Avenue watermain	$1,150,000	
Water	40 (South)	Rock Island Rd watermain	$1,450,000	4
Sewer	LS1	Upper Witte Lift Station (750 GPM)	$3,161,000	4
Sewer	5	SR 28 Truck Line Capacity Increase near WWTP (U5)	$211,000	2,4
		Total	**$5,972,000**	

6 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Water	S10 (North)	1490 3rd Pump and generator	$225,000	
Sewer	LS6	Hydro Park Lift Station (200 GPM)	$3,088,000	4
Sewer	LS5	Lower Witte Lift Station (500 GPM)	$1,146,000	4
Parks		One Neigborhood Park	$600,000	
		Total	**$5,059,000**	

Focus Area 4

Water

Focus Area 4 includes lands within the EWWD's 961 and 1170 pressure zones. While there is existing infrastructure, some improvements will be needed in the 961 zone south of the irrigation canal to increase capacity to an urban standard of service. **Table 7** at the end of this section lists the projects the EWWD has identified in its latest CIP to provide the major supply infrastructure.

Sewer

Focus Area 4 is already in the UGA and DCSD's service area boundary. Some of the area is currently served with the Kentucky View Estates Lift Station, which is currently at capacity. Before any future development can occur in this area, two major lift stations and their associated force mains need to be constructed at the bottom of collection basin. These proposed lift stations are also necessary to serve Focus Area 3 lands. Gravity collection lines will also be necessary to serve the land below SR 28

The 24-inch trunk line at the south entry to the waste water treatment plant along SR 28, which serves focus area 2, 3, and 4, is getting closer to its capacity and will be required to be replaced in the near future (Project No. 5). Modeling results from 2005 indicated that the trunk line would be slightly over capacity in 2012 based on growth projects for the area. It was recommended that the capacity of the trunk line be analyzed in 2012 to determine when the truck line will need to be upgraded. Further review of the project will be developed in the DCSD's comprehensive sewer system plan for 2016.

The DCSD has identified three major lift station infrastructure projects in its comprehensive plan required to serve Focus Area 4. These projects will also serve Focus Area 3.

Transportation

Transportation improvements have only been identified for the 6-year planning period. No transportation projects within Focus Area 4 have been identified for this planning period.

Power/Fiber

The DCPUD has stated that it currently has infrastructure in place to provide power and fiber service to this area. No additional projects have been identified.

Parks

No additional neighborhood parks are anticipated for this focus area.

Table 7 summarizes the capital improvements for Focus Area 4 for both the 6-year and 20-year planning periods.

Table 7 – Focus Area 4 Capital Projects and Costs

20 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Sewer	LS6	Hydro Park Lift Station (90 GPM)	$3,088,000	3
Sewer	LS5	Lower Witte Lift Station (350 GPM)	$1,146,000	3
		Total	**$4,234,000**	

Focus Area 5

Water

Focus Area 5 is already within the UGA and served by the EWWD's 961 and 1170 pressure zones. There are a number of projects on the EWWD's CIP in this area, though they are primarily organized to coincide with road improvements. The EWWD has recently completed the 1170 Zone booster improvements which increased redundancy and fire flow in the 1170 zone. **Table 8** at the end of this section lists the projects the EWWD has identified in its latest CIP to provide the major supply infrastructure.

Sewer

Focus Area 5 is already within the UGA and served partially by the DCSD's Cascade Avenue Lift Station and collection system. A major trunk line flowing to the south from the north end of the DCSD service area is needed to sewer the area. Several projects have been completed in the past 10 years to develop this infrastructure including construction of the Cascade Avenue Lift Station and installation of trunk lines in Cascade Avenue, Columbia Avenue, Empire Avenue and 29th Street SE. A collection trunk line in Empire Avenue when the County road improvements are completed has been identified in the DCSD's CIP to reach to the far north end of their service boundary.

Transportation

Transportation improvements have only been identified for the 6-year planning period. Transportation projects within Focus Area 5 include the following:

- Construction of Eastmont Extension from milepost 2.29 of Eastmont Avenue to the intersection of SR 28/US 2; including a connection to N Baker Avenue.
- Widening and safety improvement on Cascade Avenue between 19th Street NW and Wilshire Avenue.
- Reconstruction of NW Empire Avenue from 27th Street NW to 35th Street NW to add capacity.

Power/Fiber

The DCPUD has stated that it currently has infrastructure in place to provide power and fiber service to this area. No additional projects have been identified.

Parks

No additional neighborhood parks are anticipated for this focus area.

Table 8 summarizes the capital improvements for Focus Area 5 for both the 6-year and 20-year planning periods.

Table 8 – Focus Area 5 Capital Projects and Costs

6 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Water	8	27th Street watermain	$250,000	
Water	15	27th to 30th 1170 transmission	$350,000	
Water	10	23rd NE watermain	$260,000	
Water	14	Baker Ave 20th – 23rd	$470,000	
Water	19	Empire Avenue watermain	$370,000	
Water	20	North 961 transmission (Cascade Ave)	$2,800,000	
Water	26	Baker Ave 17th-20th	$460,000	
Water	36	19th St Realignment	$710,000	
Sewer	4	Build Empire Gravity Extension	$1,123,000	
Transportation	DC2	Eastmont Ave Extension	$5,000,000	
Transportation	DC8	Cascade Ave. NW-19th St. NW to Wilshire Ave.	$3,000,000	
Transportation	DC16	NW Empire Ave.-27th St. NW to 35th St. NW	$2,650,000	
		Total	**$17,443,000**	
20 Year CIP				
Service	**Plan Designation**	**Description**	**Cost**	**Other Focus Areas Benefitted**
Sewer	#LS7	Upgrade Cascade Ave Lift Station from 830 to 100	$412,000	
		Total	**$412,000**	

Areas within the Existing UGA but Outside the Focus Areas

Water

The EWWD's service area encompasses the entire existing UGA. The majority of the land is already served with domestic water infrastructure, though local water main improvements are often necessary for new development. A few small areas within the UGA are currently undeveloped and do not include water infrastructure. This land is undeveloped usually due to agricultural use or has steep slopes difficult for construction.

Land east of SR 28 and north of 35th Street are both agriculture and steep slopes. If these areas in the 1170 pressure zone are developed, local water main extensions from the existing 12-inch main in SR 28 should be sufficient for service.

Land east of Grover Avenue and south of 15th Street is agriculture but could easily be served from the 1286 pressure zone with local water main extensions.

Undeveloped land in Fancher Heights (1591 and 1770 Zones) is adjacent to existing infrastructure, but all pumping and storage capacity is currently allocated. Additional capacity will be required. The same projects identified for Focus Area 1 would be needed to supply these areas.

Land east of Briarwood has previously been reviewed for service, but will be difficult due to the elevation gain and lack of adjacent infrastructure. The area would best be served from the 1591 pressure zone, which would require either a small closed pressure zone (typically discouraged by EWWD and DOH standards) or similar improvements to those required to increase service in Fancher Heights.

The south half of Focus Area 2 is within the current UGA and the EWWD's 1492 pressure zone. For adequate fire flow, the main in 8th Street NE must be replaced, or a main in 10th Street NE constructed (or both), plus local distribution. This project is listed under Focus Area 2.

As density increases in the EWWD's service area and UGA, additional transmission capacity from the source near the Odabashian Bridge will be needed. The existing 24-inch transmission main currently ends at 19th Street and Cascade Avenue. The EWWD's CIP shows extension of this main to 9th Street by 2018. However, this schedule is driven by growth and might be deferred. Other water main replacement projects throughout the EWWD could also allow rescheduling of this project to a later date. The Wenatchee Regional Water System is currently studying future source and supply options. Depending on the results of that study, it is possible that extension of the 24-inch main could be deferred to 20 years or even further. Further review of this project will be developed in the EWWD's comprehensive water system plan for 2014. Other projects that may be needed to increase capacity within 20 years include adding pumps at the Regional Supply Station and 15th Street Booster Station.

Table 9 at the end of this section lists the projects the EWWD has identified in their latest CIP to provide the major supply infrastructure. It should be noted that not all of the projects identified in the EWWD CIP are listed in these tables. Projects not listed include projects currently underway, projects that are now obsolete and will not be built, projects that are outside this UGA and proposed focus areas, and operations and maintenance costs. The full list of CIP costs is provided in **Appendix C**.

Sewer

The DCSD currently encompasses 5,430 acres, of which about 3,400 acres currently are served with sewers. A few significant areas within the UGA are currently undeveloped and do not include sewer infrastructure. This land is undeveloped usually due to agricultural use or has steep slopes difficult for construction.

Land areas within the UGA and the District's service boundary but outside of the focus areas that have potential for development are as follows:

> Land east of North Baker Avenue and north of 23rd Street NE is adjacent to sewer service west of the irrigation canal in North Baker Avenue. This area can be served by connecting to the sewer system west of the irrigation canal. A canal crossing and approximately 200 feet of gravity sewer would be required to reach the far end of the property for connection by the next landowner. The DCSD plans to install the canal crossing only as part of the County's 23rd Street NE project in 2014 (Project No. 2).
>
> Lands fronting North Baker Avenue between 21st Street NE and 23rd Street NE can be served by extending the North Baker trunk line between those two streets. This project is identified

to be completed as part of the planned county road improvements on North Baker Avenue that is tentatively scheduled for 2015 (Project No 3).

Serving lands along the Columbia River at the base of 15th Street NW have been identified as a project in the DCSD's CIP. A lift station, force main and gravity collection system is required (Project No. LS2).

Table 9 at the end of this section lists the projects the DCSD has identified in its latest CIP to provide the major collection infrastructure. It should be noted that not all of the projects identified in the DCSD CIP are listed in these tables. Projects not listed include projects currently underway, projects that are now obsolete and will not be built, projects that are outside this UGA and proposed focus areas, and operations and maintenance projects.

Transportation

Transportation improvements have only been identified for the 6-year planning period. Transportation projects within the UGA but outside the focus areas include projects identified by the City and four projects identified by the County. Projects are listed in **Table 9**.

Power/Fiber

The DCPUD has stated that it currently has infrastructure in place to provide power and fiber service to this area.

Parks

A total of three additional neighborhood parks are anticipated for this focus area.

Table 9 summarizes the capital improvements for other areas inside the UGA for both the 6-year and 20-year planning periods.

Table 9 – Other Areas Inside the UGA Capital Projects and Costs

6 Year CIP			
Service	Plan Designation	Description	Cost
Water	21	9th St. Transmission Phase 1	$290,000
Water	28	961 Transmission Phase 2	$1,150,000
Water	30	961 Transmission Phase 3	$2,000,000
Water	S3	System Supply Increase	$250,000
Water	S7	1286 Supply Improvements	$290,000
Water	1	Yearly old main replacement	$600,000
Water	2	15th to Pearcot transmission - SR28 (2014)	$146,000
Water	4	Glendale rebuild (completed 2012)	$82,000
Water	5	Eastmont Reconstruction (2013)	$156,000
Water	6	Eastmont Reconstruction (2013)	$1,095,000
Water	7	15th to Pearcot transmission - Pace (2014)	$409,000
Water	11	Grant/Van Well rebuild	$42,000
Water	13	Rock Island Road	$335,000
Water	16	4th SE/Van Well rebuild	$149,000
Water	17	Valley Mall Pkwy overlay	$481,000
Water	24	Leslie Street replacement	$241,000
Water	25	24" Transmission Relocation	$358,000
Water	S4	1286 storage - phase 1 (2015)	$5,520,000
Water	S5	1286 storage - phase 2 (demolition) (2015)	$149,000
Sewer	2	23rd NE Irrigation Crossing	$59,600
Sewer	3	Baker Ave Gravity Sewer	$163,200
Transportation	DC6	Rock Island Rd.- City Limits to Eller St.	$1,272,000
Transportation	DC7	N. Baker Ave.-City Limits to 23rd St. NE	$2,650,000
Transportation	DC9	Feil Place-Canal Crossing	$140,000
Transportation	DC21	23rd St. NE Reconstruction-SR-28 to N. Baker Ave.	$1,415,888
Transportation	EW1	Rock Island Rd.- Grant Rd. to 3rd St. SE	$1,400,000
Transportation	EW2	Grant Rd. Overlay Phase 1 - SR 28 to Eastmont Ave.	$610,504
Transportation	EW4	Kentucky Ave. - Grant Rd. to 3rd St. SE	$2,400,062
Transportation	EW6	Kentucky Ave. - 5th St. NE to 8th St. NE	$2,297,900
Transportation	EW7	Eastmont Ave. Reconstruction, Grant Rd. 5th St.	$3,810,900
Transportation	EW8	Eastmont Ave. Reconstruction, 5th St. NE to 9th St. NE	$2,555,300
Transportation	EW9	Baker Ave. Reconstruction - 15th St. to City limits	$3,883,171
Transportation	EW10	9th St. and Valley Mall Parkway Intersection	$375,000
Transportation	EW11	Grover Ave. Clarissa Lane to 12th St. NE	$495,700
Transportation	EW13	19th St. NE Realignment - Baker Ave. to Eastmont Ave.	$3,525,000
Transportation	EW14	15th St. NE Reconstruction - SR 28 to Eastmont Ave.	$2,444,000

6 Year CIP Cont.			
Transportation	EW15	Baker Ave. Extension - 3rd Ave. NE to Grant Rd.	$2,540,000
Transportation	EW16	4th St. NE Widening - W. Degage to E. Degage	$193,000
Transportation	EW17	Grant Rd. Overlay - Eastmont Ave. to Kentucky Ave.	$1,250,000
Transportation	EW18	Eastmont Ave. & 3rd St. NE Traffic Signal	$500,000
Transportation	EW19	Highline Drive & 3rd St. SE Traffic Signal	$450,000
Transportation	EW20	Rock Island Rd. & 3rd St. SE Traffic Signal	$375,000
Transportation	EW21	10th & Grover Pedestrian/School Crossing	$300,000
		Total	**$48,849,225**

20 Year CIP			
Service	**Plan Designation**	**Description**	**Cost**
Water	12	Grant Rd realignment	$837,000
Water	27	Baker Ave Reconstruction	$188,000
Water	29	961 transmission extension ph 2	$732,000
Water	31	15th to Pearcot transmission (Highline)	$52,000
Water	32	15th to Pearcot transmission (Highline)	$85,000
Water	34	Eastmont overlay	$994,000
Water	35	Eastmont overlay	$146,000
Water	41	Rock Island Road	$529,000
Water	42	Enhanced Distribution	$457,000
Water	44	Batterman replacement	$1,456,000
Water	45	10th SE replacement	$1,040,000
Water	46	Enhanced Distribution	$728,000
Water	47	SR28 Overlay 35th to Rock Island	$837,000
Water	S8	Regional source well	$895,000
Water	S9	Regional source transmission	$5,968,000
Water	S20	Hartle transmission	$836,000
Water	S21	Hartle and 8th St PRVs	$90,000
Sewer	6	19th St. Truck Capacity (U4)	$67,000
Sewer	8	Cascade Ave Gravity Sewer Ext (E1)	$793,152
Sewer	9	S. Houston St. Replacement (U2)	$261,120
Sewer	10	2nd Street SE Replacement (U2)	$114,240
Sewer	LS2	Webster Park Lift Station and FM	$1,060,800
Parks		Three Neigborhood Parks	$1,800,000
		Total	**$19,966,312**

Financing Options

There are various financing options for funding the required improvements, including utilizing a general facilities charge (GFC), a local improvement district (LID) and utility local improvement district (ULID), bonds, grants or loans. Descriptions of some of the financing options follow.

General Facilities Charges

A GFC, or system development charge as provided by Revised Code of Washington (RCW) 57.08.005, refers to a one-time charge imposed on new customers as a condition of connection to the utility system. The purpose of the GFC is two-fold: 1) to promote equity between new and existing customers; and 2) to provide a source of revenue to fund capital projects. Equity is served by providing an approach for new customers to share in the capital costs incurred to support their addition to the system. GFC revenues provide a source of cash flow to support utility capital needs; revenue can only be used to fund utility capital projects or to pay debt service incurred to finance those projects.

In the absence of a GFC, growth-related capital costs would be borne in large part by existing customers. In addition, the net investment in the utility already collected from existing customers, whether through rates, charges and/or assessments, would be diluted by the addition of new customers, effectively subsidizing new customers with prior customers' payments. To establish equity, a GFC should recover a proportionate share of the existing and future infrastructure costs from a new customer. From a financial perspective, a new customer should become financially equivalent to an existing customer by paying the GFC.

Utility Local Improvement District

A ULID is another mechanism for funding infrastructure that assesses benefited properties based on the special benefit received by the construction of specific facilities (RCW 35.43.042). Most often used for local facilities, some ULIDs also recover related general facilities costs. Substantial legal and procedural requirements can make this a relatively expensive and time consuming process, and there are ways by which a ULID can be rejected by a majority of property ownership within the assessment district boundary. A ULID would be an effective option to recovering costs for improvements to the system required by a significant development, because all of the costs would be borne by the development. The disadvantage for a developer is that the ULID becomes the first lienholder, and it is sometimes difficult to finance the subdivision or sale of property without first satisfying this debt. Because of this disadvantage, the developers owning the property may reject a ULID.

Grants and Loans

There are a number of grant and loan programs that should be considered for funding improvements. Those programs include the following:

- U.S. Department of Commerce: Public Works Trust Fund; Community Development Block Grant; Community Economic Revitalization Board
- Washington State Department of Ecology: Washington State Water Pollution Control Revolving Fund Loan
- U.S. Department of Agriculture Rural Development: Rural Utilities Services, Water, and Waste Disposal

Public Debt

Revenue bonds are commonly used to fund utility capital improvements. The debt is secured by the revenues of the issuing utility and the debt obligation does not extend to the utility's other revenue sources. With this limited commitment, revenue bonds typically require security conditions related to the maintenance of dedicated reserves (a bond reserve) and financial performance (added bond debt service coverage). The utility agrees to satisfy these requirements by ordinance as a condition of bond sale.

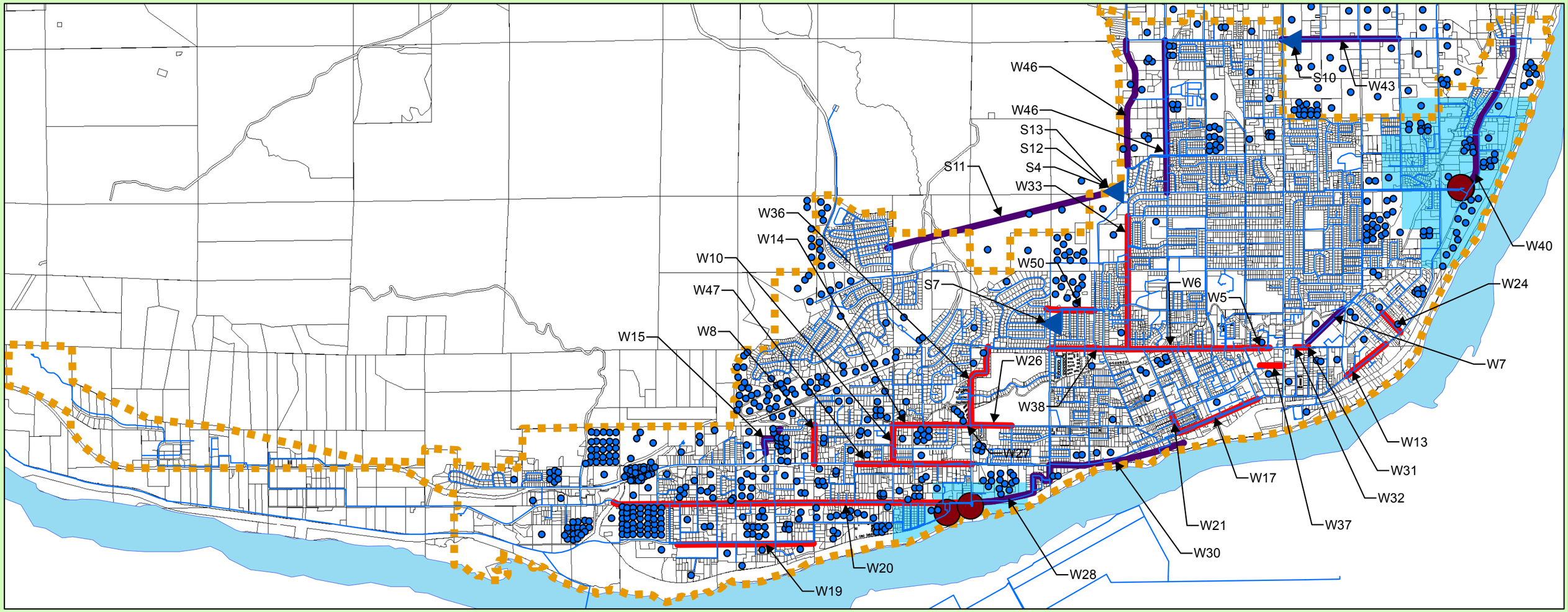
Revenue bonds can be issued in Washington State without a public vote. There is no bonding limit, except perhaps the practical limit of the utility's ability to generate sufficient revenue to repay the debt and provide coverage. In some cases, poor credit might make issuing bonds problematic or result in high interest rates.

Recommendations

An ideal funding strategy would include the use of grants and low-cost loans when debt issuance is required. However, these resources are very limited and competitive in nature and do not provide a reliable source of funding for planning purposes. It is recommended that the utility providers pursue these funding avenues but assume bond financing supported by revenues from general facilities charges. The capital financing strategy developed to fund the required improvements assumes the following funding priority.

Appendices

Appendix A
General Maps



EAST WENATCHEE WATER DISTRICT SYSTEM

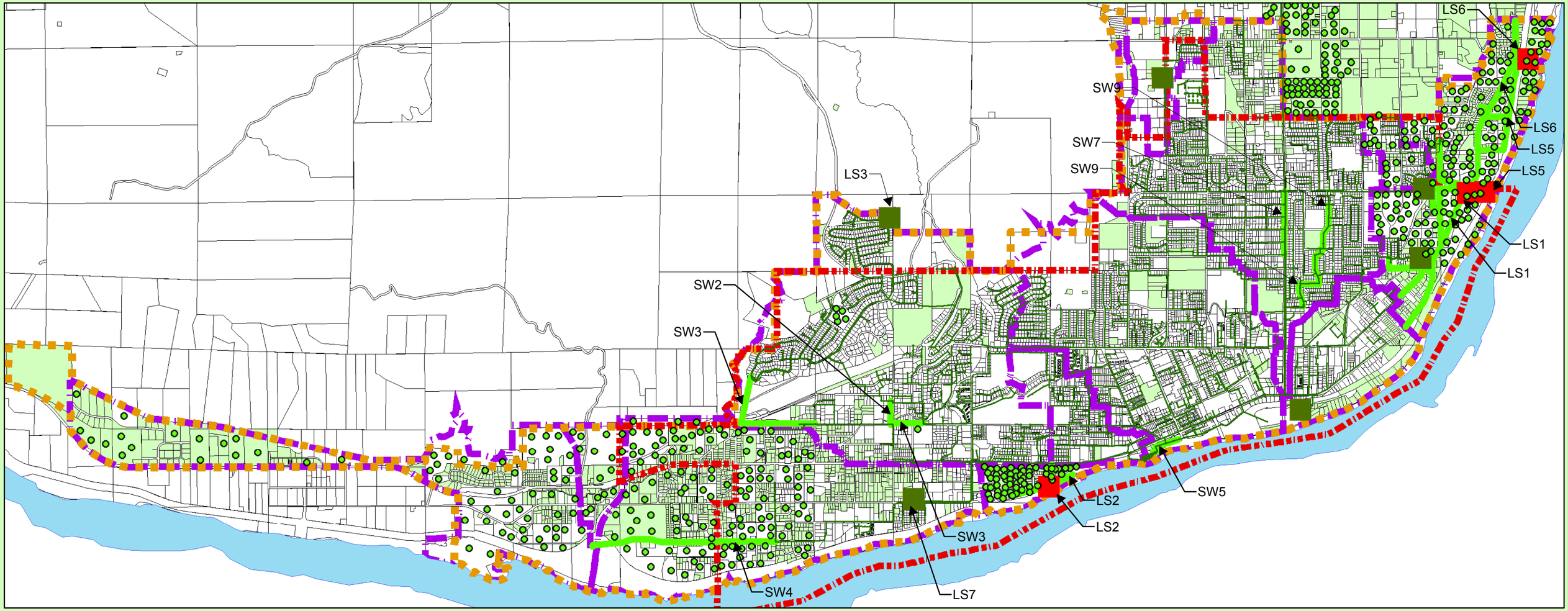
EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

- 1 DOT = 10 ERU
- WATER FACILITY CIP
- ACTIVE WELL
- UGA
- 6 year O&M
- 6 YEAR WATER GROWTH CIP
- EXISTING WATER MAIN
- WELLHEAD PROTECTION AREA

N

1 inch = 3,200 feet

0 1,600 3,200



DOUGLAS COUNTY SEWER DISTRICT SYSTEM

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

SEWER ERU

- 1 DOT = 10 ERU
- EXISTING LIFT STATION
- FUTURE LIFT STATION
- EXISTING SEWER MAIN
- SEWER LINE CIP
- EXISTING SEWER SERVICE AREA
- UGA
- SEWER BASIN
- SEWER
- SEPTIC

N

1 inch = 3,200 feet

0 1,600 3,200

ROADS

EAST WENATCHEE TRANSPORTATION CIP

DOUGLAS COUNTY TRANSPORTATION CIP

UGA

CITY LIMITS

BADGER MTN RD

38TH ST NW

SAND CNYN RD

CANYON HILLS DR

PLATEAU DR

GRAND AVE

DANIELS DR

FANCHER BLVD.

MOUNTAIN VW DR

Holcomb Ln

SR-2/97

BLUEROCK DR

41ST ST

37TH ST NW

35TH ST NW

VINE ST NE

MCELMURRY LN

27TH ST NE

NW CASCADE AVE

NW EMPIRE AVE

NW FIR AVE

SR-97 ALT

SR-2/97

25TH ST NW

22ND ST NW

19TH ST NW

SR-28

N BAKER AV

N ASHLAND AV

AURORA AVE

15TH ST NE

14th St NE

13TH ST NE

11TH ST NE

9TH ST NE

5th St NE

N. Alvin Ct.

10TH ST NE

8TH ST NE

6TH ST NE

5TH ST NE

3RD ST NE

1ST ST NE

SUNDAY DR.

Michael Pl.

10TH PL NE

N LYLE AVE

N LANDER CT

N KENTUCKY AV

N KANSAS AVE

N JENNIFER LN

N IOWA AVE

N GROVER AV

Huntwood Ln.

HANNAH WAY

N EASTMONT AV

ELLA ST

10TH ST NE

9TH ST NE

3RD ST NE

GRANT RD

PACE DR.

HIGHLINE DR

Simon St.

CHIEF ST

N BAKER AVE

5th St NE

N ROLAND AV

N QUINCY AV

N PERRY AV

2ND ST SE

4TH ST SE

6TH ST SE

8TH ST SE

ROCK IS. RD.

N NILE AV

S NILE AV

S. NEVADA AVE.

S NANCY AVE

S MARY AV

S. MARY

S LYNN AV

S LYLE AV

S LEE CT

S KENTUCKY

S KENTUCKY AV

N KELLER AV

N KANSAS AV

N JUNE AV

N JOSEPH AV

N JAMES AV

N IOWA ST

S IOWA AV

S HOUSTON

1ST ST SE

2ND ST SE

3RD. ST SE

DC11

DC18

DC5

DC7

DC21

DC2

DC16

DC9

DC8

EW6

EW12

EW21

EW14

EW13

EW11

EW16

EW9

EW10

EW8

EW5

EW4

EW17

EW19

DC6

EW20

EW7

EW1

EW2

EW18

EW15

SR-285

TRANSPORTATION CIP

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

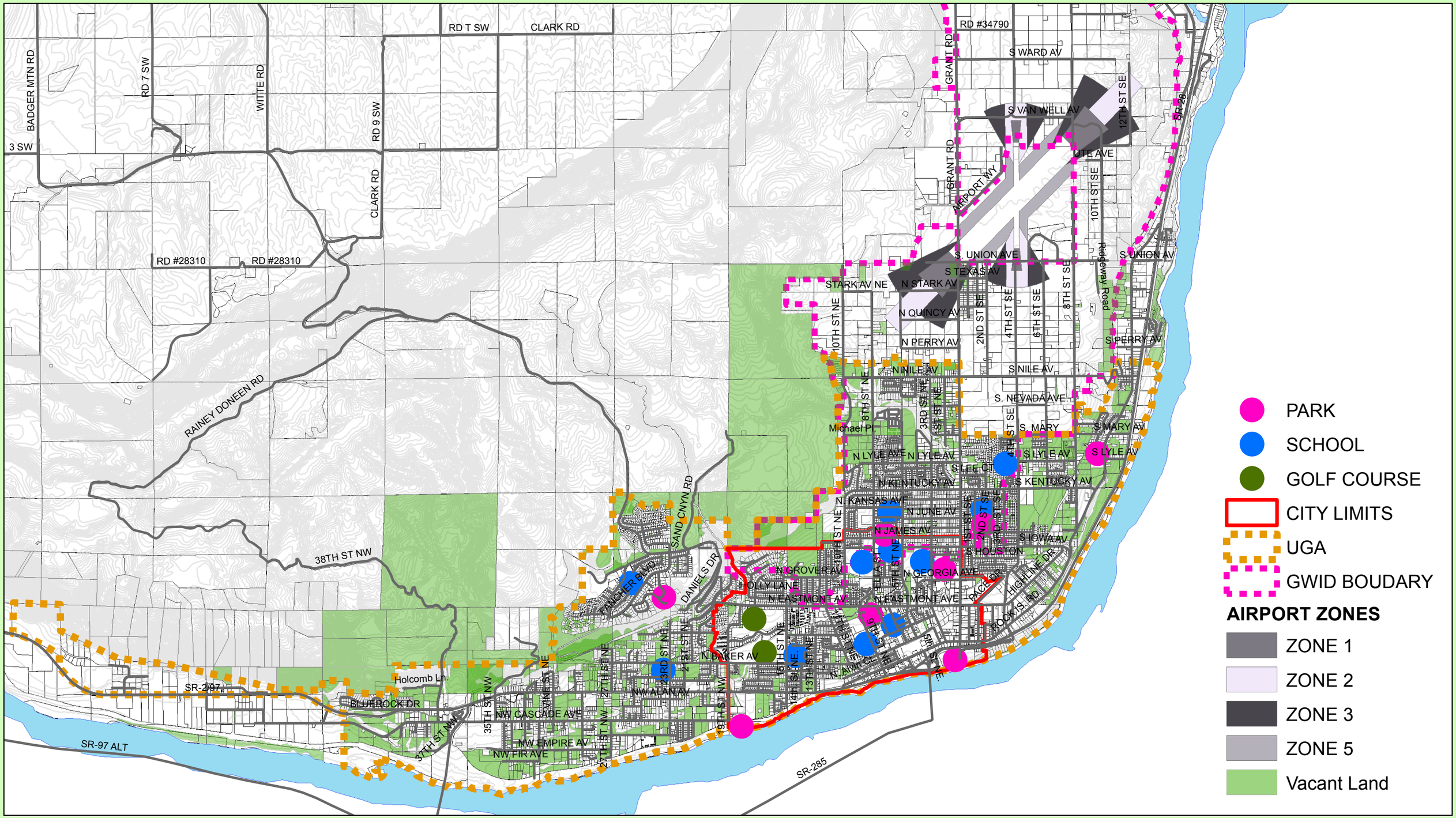
1 inch = 3,200 feet

0 1,600 3,200

RH2 ENGINEERING PLANNERS SCIENTISTS

DOUGLAS COUNTY Est. 1883

CITY OF EAST WENATCHEE



N

1 inch = 4,000 feet

0 2,000 4,000

MAPPED DATA - GENERAL

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

UGA

SEWER

SEPTIC

SEPTIC USERS

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

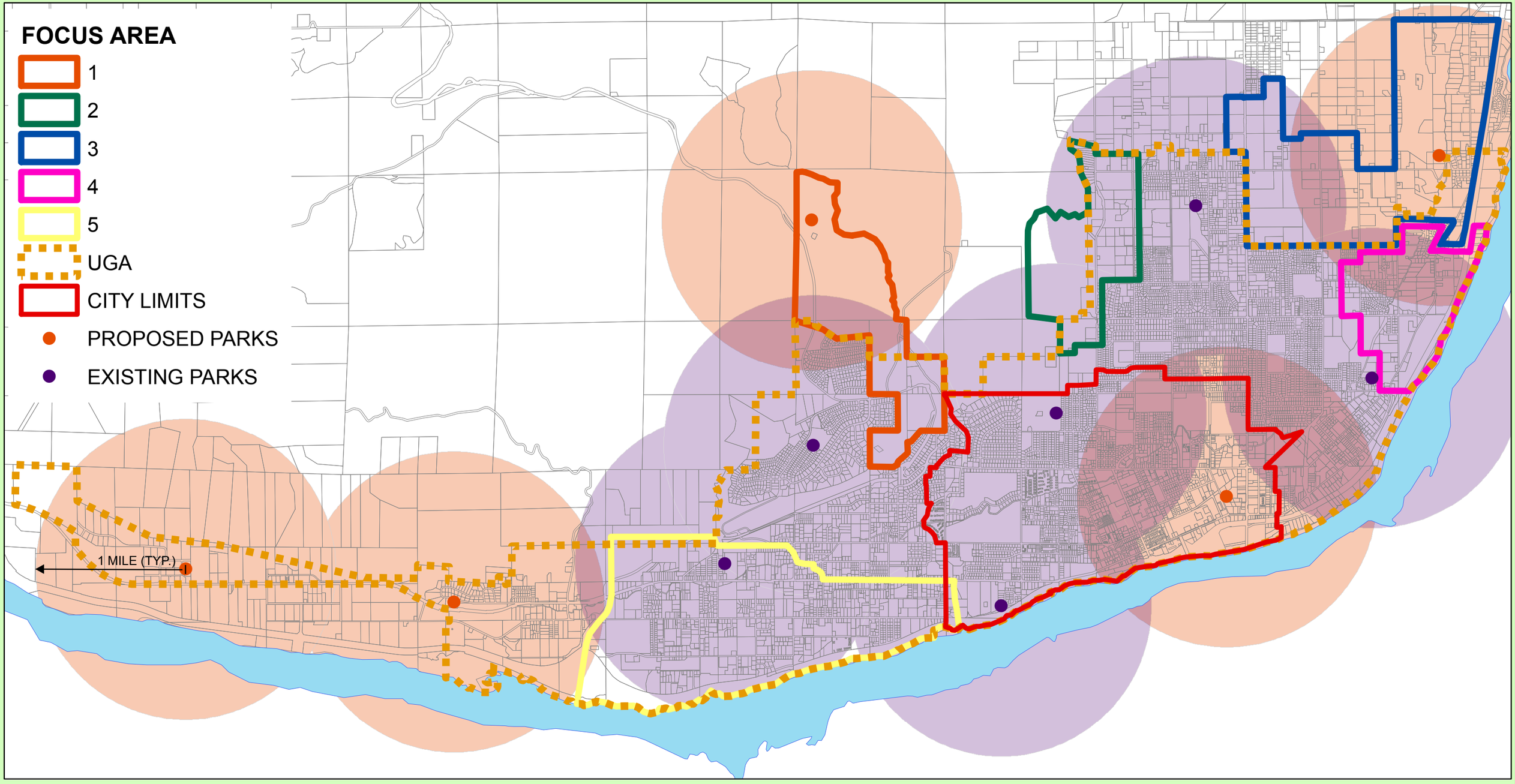
1 inch = 3,200 feet

0 1,600 3,200

RH2 ENGINEERING PLANNERS SCIENTISTS

DOUGLAS COUNTY Est. 1883

CITY OF EAST WENATCHEE



NEIGHBORHOOD PARK DISTRIBUTION

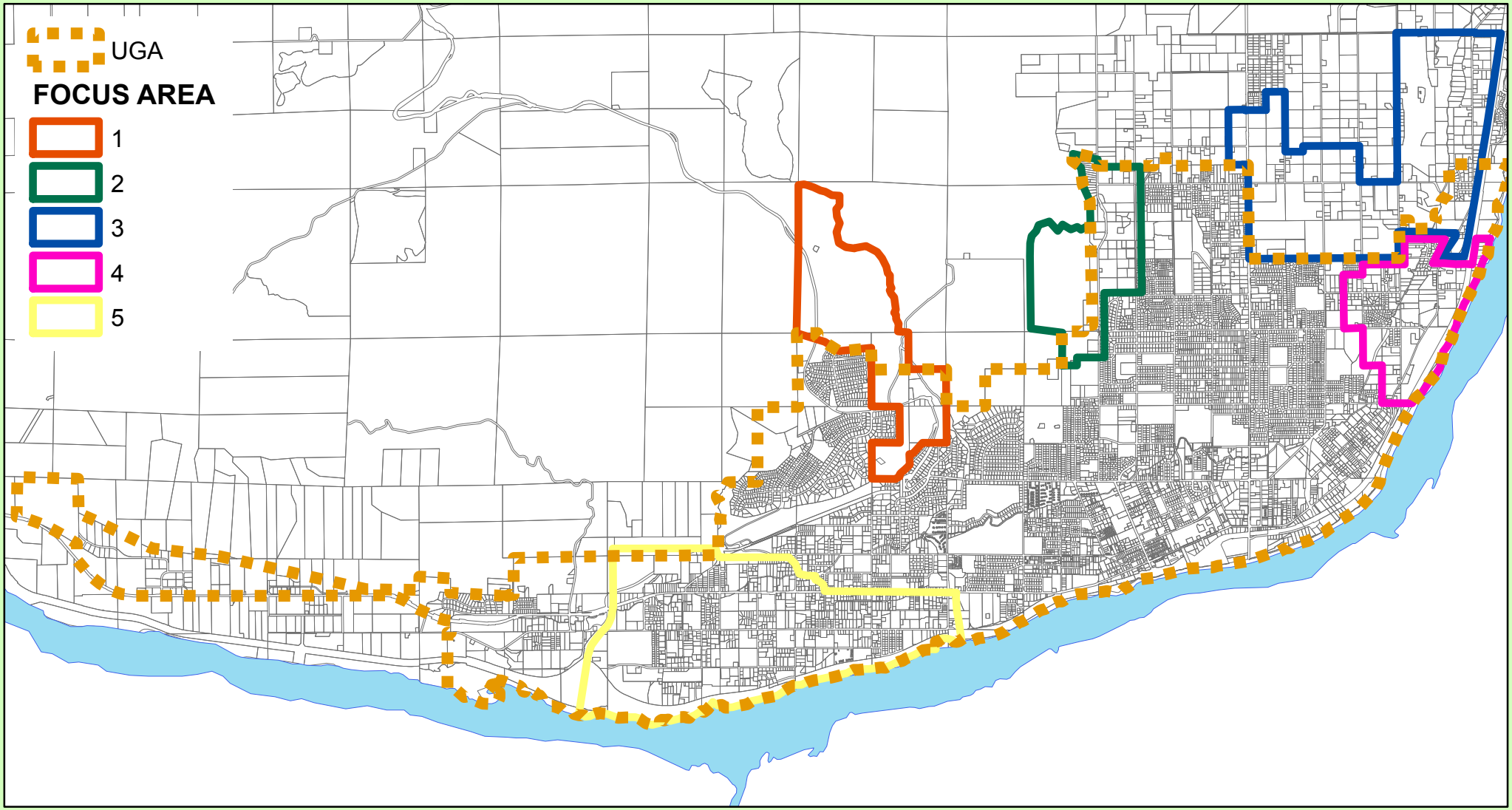
EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

1 inch = 3,200 feet

0 1,600 3,200

Appendix B
Focus Area Maps



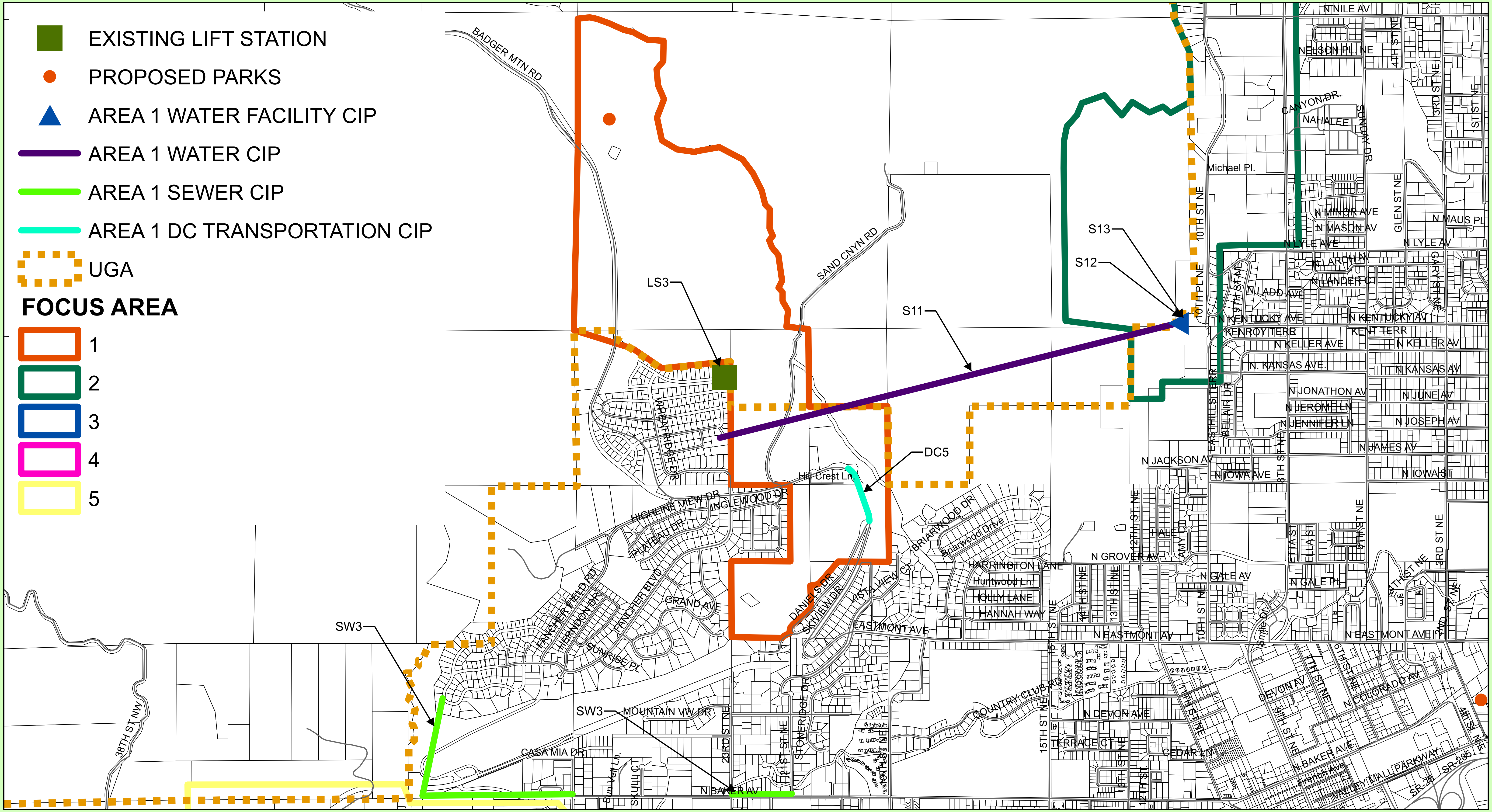
N

1 inch = 5,000 feet

0 2,500 5,000

FOCUS AREAS

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013



FOCUS AREA 1 REQUIRED CIP

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

1 inch = 1,500 feet

0 750 1,500

RH2

AREA 2 WATER FACILITY CIP

AREA 2 WATER CIP

AREA 2 SEWER CIP

AREA 2 EW TRANSPORTATION CIP

EXISTING LIFT STATION

UGA

FOCUS AREA

1

2

3

4

5

W33

LS4

W33

S13

S12

S11

SW5 TO THE WEST

EW12

SW7

N QUINCY AV

5TH ST NE

10TH ST NE

N PERRY AV

2ND ST SE

N NILE AV

S NILE AV

4TH ST NE

NELSON PL NE

3RD ST NE

1ST ST NE

CANYON DR.

NAHALEE

SUNDAY DR.

Michael Pl.

N MARY AV

MARY LN

N MINOR AVE

N MASON AV

N LYLE AVE

N MAUS PL

N LYLE AV

GLEN ST NE

N LARCH AV

N LANDER CT

S LEE CT

LINDEN PL

S KENTUCKY

N KENTUCKY AV

KENROY TERR

KENT TERR

N KELLER AVE

N KELLER AV

S KELLER AVE

N KANSAS AVE

N KANSAS AV

N JONATHON AV

N JEROME LN

N JENNIFER LN

N JUNE AV

N JOSEPH AV

N JAMES AV

N JACKSON AV

N IOWA AVE

N IOWA ST

S IOWA

S IOWA AV

S HOUSTON

EASTRIDGE DR

Edwards Place

N GEORGIA AVE

N GALE AVE

N GALE Pl

N GROVER AV

FAIRMONT AVE

PACE DR

3RD ST SE

2ND ST SE

1ST ST SE

DALE ST

STEDFORD ST

GRANT RD

EASTHILLS TERR

66TH AVE DR

10TH PL NE

9TH ST NE

8TH ST NE

7TH ST NE

6TH ST NE

5TH ST NE

4TH ST NE

3RD ST NE

2ND ST NE

1ST ST NE

12TH ST NE

13TH ST NE

HALE CT

ELIAS ST

ETTA ST

ALLEN CT

SAND CNYN RD

COMBINE ST

CANYON HILLS DR

PRAIRIE DR

Hill Crest Ln.

FANCHER FIELD RD

INGLEWOOD DR

PLATEAU DR

FANCHER BLVD

GRAND AVE

PRATT CT

DANIELS DR

SKYVIEW TER

HALLMEW CT

BRIARWOOD DR

Briarwood Drive

HARRINGTON LANE

Huntwood Ln.

HOLLY LANE

HANNAH WAY

N

1 inch = 1,500 feet

0 750 1,500

FOCUS AREA 2 REQUIRED CIP

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

PROPOSED PARKS

AREA 3 WATER FACILITY CIP

AREA 3 WATER CIP

AREA 3 SEWER CIP

AREA 3 SEWER FACILITY CIP

UGA

FOCUS AREA

1

2

3

4

5

W40

S10

W43

LS6

LS6

LS5

LS1

LS1

SW5 TO THE NORTHWEST

N UNION AV

S. UNION AVE

S UNION AVE

10TH ST SE

S UNION AV

Ridgeway Road

N STARK AV

S STARK AV

S ROLAND AV

1ST ST NE

1ST ST SE

1st St SE

FAIRWAY ST SE

6TH ST NE

N QUINCY AV

2ND ST SE

4TH ST SE

6TH ST SE

8TH ST SE

ROCK IS. RD

ALAMEDA AV

N PERRY AV

S PERRY AV

11TH ST SE

N NILE AV

S NILE AV

NELSON PL NE

41ST ST NE

3RD ST NE

1ST ST NE

SR-28

S. NEVADA AVE.

CANYON DR.

NAHALEE

SUNDAY DR

S NANCY AVE

6TH ST SE

Michael Pl.

N MARY AV

GRANT RD

S. MARY

S MARY AVE

S MARY AV

3RD ST NE

S MASON AV

MARY LN

S LYNN AV

47TH ST SE

N MINOR AVE

N MASON AV

GLEN ST NE

N MAUS PL

S LYLE AV

N LYLE AVE

N LYLE AV

MANHATTAN DR

N LARCH LN

S LARCH AV

N LANDER CT

S LEE CT

10TH PL NE

9TH ST NE

N LADD AVE

LINDEN PL

RD #19350

N KENTUCKY AV

S KENTUCKY

S KENTUCKY AV

RD 17040

KENROY TERR

KENT TERR

N KELLER AVE

N KELLER AV

S KELLER AVE

S KELLER AV

N. KANSAS AVE.

N KANSAS AV

10TH ST NE

BELLAIRE DR

EAST HILLS TER DR

N JONATHON AV

N JUNE AV

TEDFORD ST SE

1ST ST SE

2ND ST SE

3RD ST SE

N JEROME LN

N JENNIFER LN

N JOSEPH AV

S JARVIS AVE

JARVIS AVE

DALE ST

N JAMES AV

S JAMES AV

N JACKSON AV

S JACKSON AV

N IOWA AVE

N IOWA ST

S IOWA

S IOWA AV

FOCUS AREA 3 REQUIRED CIP

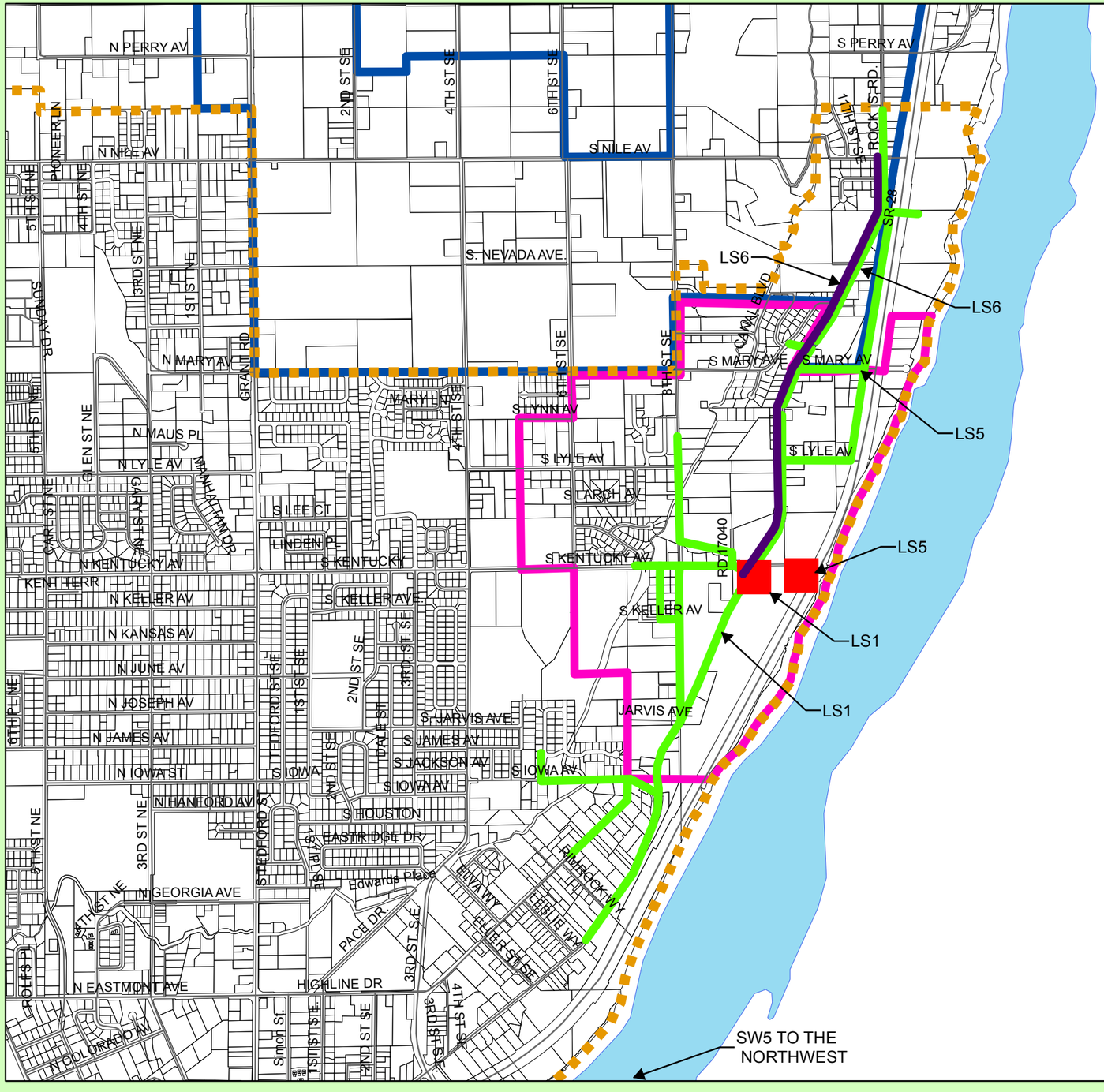
EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

1 inch = 1,500 feet

0 750 1,500

RH2



AREA 4 WATER CIP

AREA 4 SEWER CIP

AREA 4 SEWER FACILITY CIP

UGA

FOCUS AREA

1

2

3

4

5

N

1 inch = 1,500 feet

0 750 1,500

FOCUS AREA 4 REQUIRED CIP

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

PROPOSED PARKS

AREA 5 DC TRANSPORTATION CIP

AREA 5 SEWER CIP

AREA 5 WATER CIP

EXISTING LIFT STATION

UGA

FOCUS AREA

1

2

3

4

5

FOCUS AREA 5 REQUIRED CIP

EAST WENATCHEE/DOUGLAS COUNTY
COMBINED CAPITAL FACILITY PLAN
JUNE 2013

N

1 inch = 1,500 feet

0 750 1,500

RH2

Appendix C
Cost Estimates

East Wenatchee Water District - 2013 Schedule of Recommended Improvements (Capital Improvement Plan)

CIP No.	Description	Purpose	Size	Length	Location Along	From	To	2012 Cost Estimate Constr.	Indirect	Total	2012	2013	2014	2015	2016	2017	2018+	By Others
Pipeline Projects											***1.00***	***1.04***	***1.08***	***1.12***	***1.17***	***1.22***	***1.27***	***1.0***
1	Yearly old main replacement	O&M						$150,000		$150,000			$150,000	$150,000	$150,000	$150,000	$150,000	
2	15th to Pearcot transmission	Capacity / O&M	12 in	700 ft	SR28	13th NE	14th NE	$98,184	$48,306	$146,490		$127,230						
3	Eastmont Ext (remove Carmichaels)	O&M			Eastmont						$0							
4	Glendale rebuild	DoCo rebuild	8 in	750 ft	Glendale	SR28	Vine	$55,000	$27,060	$82,060	$82,060							
5	Eastmont Reconstruction	E Wen Street Rebuild 2013	18 in	550 ft	Eastmont	1st NE	3rd NE	$104,689	$51,507	$156,195	$25,753	$135,660						
6	Eastmont Reconstruction	E Wen Street Rebuild 2013	16 in	4,000 ft	Eastmont	3rd NE	9th NE	$733,772	$361,016	$1,094,787	$180,508	$950,851						
7	15th to Pearcot transmission	Capacity	12 in	1,700 ft	Pace	Highline	Ridgemont	$274,078	$134,846	$408,924		$425,281						
8	1170 North transmission	Fire flow	12 in	1,000 ft	27th NE	SR28	Baker	$161,222	$79,321	$240,544		$250,165						
10	23rd NE reconstruction	DoCo widening 2013-14	8 in	1,400 ft	23rd NE	SR28	Baker	$165,777	$81,562	$247,340		$40,781	$214,821					
11	Grant/Van Well rebuild	DoCo roundabout 2014	12 in	200 ft	Grant	Van Well		$28,052	$13,802	$41,854		$7,177	$37,806					
12	Grant Rd realignment	DoCo Quincy to Airport Way 2013+	12 in	4,000 ft	Grant	Stark	Airport Wy	$561,049	$276,036	$837,086								$837,086
13	Rock Island Road	DoCo widening 2015+	12 in	1,600 ft	Rock Isl. Rd	3rd SE	Eller	$224,420	$110,415	$334,834			$59,712	$314,542				
14	Baker Ave Reconstruction	DoCo rebuild 2015	12 in	2,000 ft	Baker	20th	23rd	$280,525	$138,018	$418,543			$74,640	$393,178				
15	27th to 30th 1170 transmission	Fire flow / Capacity	12 in	1,500 ft	easement	27th NE	McElmurray	$210,394	$103,514	$313,907			$55,980	$294,883				
16	4th SE/Van Well rebuild	DoCo Intersection 2015+	12 in	500 ft	4th SE	Van Well		$100,000	$49,200	$149,200			$26,607	$140,158				
17	Valley Mall Pkwy overlay	E Wen overlay 2014	12 in	2,300 ft	Valley Mall	4th NE	9th NE	$322,603	$158,721	$481,324			$85,836	$452,155				
18	Valley Mall Pkwy widening/sidewalks	E Wen 2018		2,300 ft	Valley Mall	4th NE	9th NE											
19	Empire Ave replacement	DoCo reconstruction 2015+	8 in	1,800 ft	Empire	27th NE	35th NE	$213,142	$104,866	$318,008				$58,980	$310,685			
20	North 961 transmission	DoCo widening 2015+	12 in	12,000 ft	Cascade	19th NE	US97	$1,683,148	$828,109	$2,511,257				$447,841	$2,359,067			
21	9th St 24" Transmission phase 1	Capacity	24 in	800 ft	9th NE	Valley Mall Pkwy	Baker Ave	$163,938	$80,657	$244,595					$286,142			
22	12th St SE reconstruction	DoCo widening and realignment 2016	8 in	4,000 ft	12th SE	10th SE	end of 12th SE	$473,649	$233,035	$706,685					$131,067	$718,028		
23	12th St SE new construction	DoCo new road extension 2016	8 in	4,000 ft	12th SE	end of 12th SE	8th & Ward	$473,649	$233,035	$706,685					$131,067	$718,028		
24	Leslie Street replacement	Fire flow	12 in	1,000 ft	Leslie	Rock Isand Rd	Highline	$161,222	$79,321	$240,544					$44,613	$244,405		
25	24" Transmission Relocation	DOT 2/97/Cascade reconfiguration	24 in	600 ft	DOT ROW			$240,000	$118,080	$358,080						$435,659		
26	Baker Ave Reconstruction	E Wen rebuild 2018 15th NE to 20th NE	8 in	1,000 ft	Baker	17th NE	19th NE	$118,412	$58,259	$176,671						$34,077	$186,687	
27	Baker Ave Reconstruction	EWen/DoCo rebuild 2018 15th NE to 20th NE	12 in	900 ft	Baker	19th NE	20th NE	$126,236	$62,108	$188,344						$36,329	$199,022	
28	961 transmission extension ph 2	Capacity	24 in	3,500 ft	easement	19th NW	15th NW	$643,868	$316,783	$960,651		get easements				$178,169	$976,072	
29	961 transmission extension ph 2	Capacity	12 in	3,500 ft	easement	19th NW	15th NW	$490,918	$241,532	$732,450						$135,845	$744,207	
30	961 transmission extension ph 3	Capacity	24 in	5,500 ft	SR28	15th NE	9th NE	$1,127,073	$554,520	$1,681,593		get easements				$311,880	$1,708,586	
31	15th to Pearcot transmission	E Wen overlay Grant to 3rd SE 2018	12 in	250 ft	Highline	Pace	1st SE	$35,066	$17,252	$52,318						$10,091	$55,284	
32	15th to Pearcot transmission	E Wen overlay Grant to 3rd SE 2018	18 in	300 ft	Highline	Simon	Pace	$57,103	$28,095	$85,197						$16,433	$90,028	
33	10th NE Reconstruction	E Wen rebuild 2018	12 in	4,700 ft	10th NE	Kansas	Eastmont	$659,233	$324,343	$983,576						$189,717	$1,039,338	
34	Eastmont overlay	E Wen overlay 2018	18 in	3,500 ft	Eastmont	9th NE	15th NE	$666,200	$327,771	$993,971						$191,723	$1,050,323	
35	Eastmont overlay	E Wen overlay 2018	12 in	700 ft	Eastmont	9th NE	15th NE	$98,184	$48,306	$146,490						$28,256	$154,795	
36	19th St Realignment	E Wen rebuild 2018	8 in	3,200 ft	19th NE	Baker	Eastmont	$378,919	$186,428	$565,348						$109,047	$597,400	
37	Baker Extention	E Wen new road (no current plans)	12 in	1,000 ft	Baker	2nd NE	Grant	$140,262	$69,009	$209,271							$264,795	
38	Ward and 4th SE replacement	Capacity / fire flow	12 in	5,300 ft	Ward & 4th SE	Grant	Webb	$743,390	$365,748	$1,109,138								$1,109,138
39	Enhanced Distribution	Capacity / fire flow	8 in	2,600 ft	Webb	4th SE	8th SE	$362,368	$178,285	$540,653								$540,653
40	Rock Island Road	Fire flow / O&M	12 in	6,000 ft	Rock Isl. Rd	Kentucky	Nile	$967,334	$475,928	$1,443,262								$1,443,262
41	Rock Island Road	Fire flow / O&M	12 in	2,200 ft	Rock Isl. Rd	Union	SR28	$354,689	$174,507	$529,196								$529,196
42	Enhanced Distribution	Capacity	8 in	2,200 ft	8th SE	Cherry Camp	East	$306,619	$150,857	$457,476								$457,476
43	S Nile Ave	Capacity	8 in	5,500 ft	Nile	Grant	8th SE	$766,548	$377,142	$1,143,689								$1,143,689
44	Batterman replacement	Capacity	8 in	7,000 ft	Batterman Rd	8th SE	Southeast	$975,606	$479,998	$1,455,605								$1,455,605
45	10th SE replacement	Capacity	8 in	5,000 ft	10th SE	8th SE	Van Well & 12th	$696,862	$342,856	$1,039,718								$1,039,718
46	Enhanced Distribution	Capacity	8 in	3,500 ft	8th or 10th NE	Lyle	Nile	$487,803	$239,999	$727,802								$727,802
47	SR28 Overlay 35th to Rock Island	DOT Overlay project (13th-25th)	12 in	4,000 ft	SR28	19th NE	25th NE	$561,049	$276,036	$837,086								
48	Kentucky Ave Reconstruction	Postponed beyond 6 year			Kentucky Ave	3rd SE	8th NE											
49	4th SE widening	By Waste Management		2,700 ft	4th SE	Van Well	Ward											
50	Grover Ave Sidewalk & Drainage	E Wen project 2018		1,700 ft	Grover	Clarissa	12th NE											
Supply and Storage Projects																		
S3	System supply increase	Capacity	5400 gpm		RSS			$150,000	$73,800	$223,800				$251,745				
S4	1286 storage - phase 1	Capacity / O&M	2.0 MG					$3,700,000	$1,820,400	$5,520,400		$910,200	$4,794,608					
S5	1286 storage - phase 2 (demolition)	Capacity / O&M						$100,000	$49,200	$149,200			$161,375					
S6	961 storage (replace old tanks)	Capacity / O&M	2.0 MG					$2,800,000	$1,377,600	$4,177,600							$5,285,997	
S7	1286 supply (add pump and MCC)	Capacity	1500 gpm		Shop BPS			$170,000	$83,640	$253,640				$285,311				
S8	Regional source well	Capacity						$600,000	$295,200	$895,200								$895,200
S9	Regional source transmission	Capacity	30 in	25,000 ft				$4,000,000	$1,968,000	$5,968,000								$5,968,000
S10	1490 engine generator & 3rd pump	Capacity / Fire flow	250kW EG + 100 hp pump					$150,000	$73,800	$223,800								$223,800
S11	1592 secondary transmission	Capacity	12 in	8,000 ft	DNR land	10th St Tanks	Badger Mt Rd	$600,000	$295,200	$895,200								$895,200
S12	1592 pump station	Capacity	1000 gpm (x2)					$500,000	$246,000	$746,000								$746,000
S13	1592/1768 storage	Capacity	0.75 MG					$800,000	$393,600	$1,193,600								$1,193,600
S14	Upper Veedol pump station	Capacity	1000 gpm		Veedol site			$500,000	$246,000	$746,000								$746,000
S15	Upper Veedol transmission	Capacity	12 in	3,000 ft	New ROW	Veedol Tank		$270,000	$132,840	$402,840								$402,840
S16	Upper Veedol reservoir	Capacity	0.5 MG (TBD)					$600,000	$295,200	$895,200								$895,200
S17	East End pump station	Capacity	500 gpm (x2)					$500,000	$246,000	$746,000								$746,000
S18	East End transmission	Capacity	12 in	4,000 ft	New ROW	Batterman Rd		$360,000	$177,120	$537,120								$537,120
S19	East End reservoir	Capacity	0.5 MG (TBD)					$600,000	$295,200	$895,200								$895,200
S20	Hartle transmission	Capacity	8 in	7,000 ft	New ROW	12th / Van Well		$560,000	$275,520	$835,520								$835,520
S21	Hartle and 8th St PRVs	Capacity	(2) 6"x2"		8th & 12th SE			$60,000	$29,520	$89,520								$89,520
O&M Projects and Studies																		
M1	Yearly meter replacement							$250,000		$250,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	
M2	Daniels Drive tank painting							$50,000		$50,000			$50,000					
M3	Source evaluation study							$50,000		$50,000								
M4	2013 Comprehensive Plan							$80,000		$80,000		$83,200					$101,226	
Total Costs											$388,321	$3,030,546	$5,811,385	$2,888,793	$3,512,641	$3,607,689	$12,703,759	$24,352,825

DOUGLAS COUNTY SEWER DISTRICT

2013 Schedule of Recommended Improvements (Capital Improvement Plan)

CIP No.	Description	Purpose	Size	Length	Location Along	Location From	Location To	2013 Cost Estimate Constr.				Indirect	Total	2014	2015	2016	2017	2018	2019	2020+
Gravity Main Projects														***1.04***	***1.08***	***1.12***	***1.17***	***1.22***	***1.27***	***1.32***
1	Misc. Annual Sewer Upgrades	O&M						$40,000					$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000	$40,000
2	23rd NE Irrigation Crossing (U3)	DoCo widening 2013-14	12 in	40 ft	23rd NE	Canal	Crossing	$36,520	$6,939	$3,564	$14,107	$24,609	$61,129	$63,574						
3	Baker Ave Gravity Sewer (E9)	DoCo rebuild 2015+	8 in	1,000 ft	Baker	21st	23rd	$100,000	$19,000	$9,758	$38,627	$67,385	$167,385		$181,044					
4	Empire Ave Gravity Sewer (E1)	DoCo rebuild 2016+ (Focus Area 5)	Varies	4,000 ft	Empire	27th NE	35th NE	$545,200	$103,588	$215,398	$259,256	$578,241	$1,123,441			$1,263,719				
5	SR28 Truck Line Capacity (U5)	Capacity (UGA Focus Area 1,2,3 &4)	24 in	466 ft	SR28	near	WWTP	$102,200	$19,418	$40,377	$48,599	$108,394	$210,594				$246,365			
6	19th St. Truck Capacity (U4)	Capacity	8 in	269 ft	19thSt NE	Northeast of	County Club	$41,280	$7,843	$4,028	$15,945	$27,817	$69,097					$84,067		
7	Grant Rd Truck Line Capacity (U7)	Cacpacity (UGA Focus Area 2)	15 in	2,140 ft	Grant Rd	Kentucky	James	$344,600	$65,474	$136,145	$163,866	$365,484	$710,084							$934,422
8	Cascade Ave Gravity Sewer Ext (E1)	Expansion	Varies	2,700 ft	Cascade	23rd NE	27th NE	$486,000	$92,340	$47,424	$187,729	$327,493	$813,493							$1,070,501
9	S. Houston St. Replacement (U2)	Capacity	Varies	800 ft	S. Houston	1st Pl SE	2nd St SE	$160,000	$30,400	$15,613	$61,804	$107,817	$267,817							$352,428
10	2nd Street SE Replacement (U2)	Capacity	8 in	350 ft	2nd St. SE			$70,000	$13,300	$6,831	$27,039	$47,170	$117,170							$154,187
Lift Station Projects																				
LS1	Upper Witte LS and FM (E5,U6)	Expansion (UGA Focus Area 3 & 4)	750 gpm		End of	15th St NW	near River	$1,534,000	$291,460	$606,053	$729,454	$1,626,967	$3,160,967						$3,999,631	
LS2	Webster Park Lift Station and FM	Expansion	90 gpm					$650,000	$123,500	$63,427	$251,078	$438,005	$1,088,005							$1,431,740
LS3	Upgrade Fancher Lift Station (FA1)	Capcity/Expansion (UGA Focus Area 1)	TBD					$100,000	$19,000	$39,508	$47,552	$106,060	$206,060							$271,161
LS4	Upgrade Summerplace Lift Station	Capacity/Expansion (UGA Focus Area 2)	TBD					$150,000	$28,500	$59,262	$71,329	$159,091	$309,091							$406,742
LS5	Lower Witte Lift Station and FM (E6)	Expansion (UGA Focus Area 3&4)	500 gpm		Near SR28	below	Upper Witte	$556,000	$105,640	$219,664	$264,391	$589,696	$1,145,696							$1,507,658
LS6	Hydro Park LS and FM (E7)	Expansion (UGA Focus Area 3&4)	200 gpm		South end	of Hydro Park		$1,348,500	$256,215	$532,765	$641,244	$1,430,224	$2,778,724							$3,656,612
LS7	Upgrade Cascade Ave LS	Capacity/Expansion (UGA Focus Area 5)	1000 gpm					$200,000	$38,000	$79,016	$95,105	$212,121	$412,121							$542,323
O&M Projects and Studies																				
M1	Sewer Rate Study							$100,000					$100,000	$100,000						
M2	WWTP Capacity Study							$50,000					$50,000		$54,080					
M3	2016 General Sewer Plan Update							$150,000					$150,000		$81,120	$84,365				
Total Costs														$203,574	$356,244	$1,388,083	$286,365	$124,067	$4,039,631	$10,367,776

City of East Wenatchee **Six Year Transportation Improvement Program** **From 2014 to 2019** **Exhibit A**

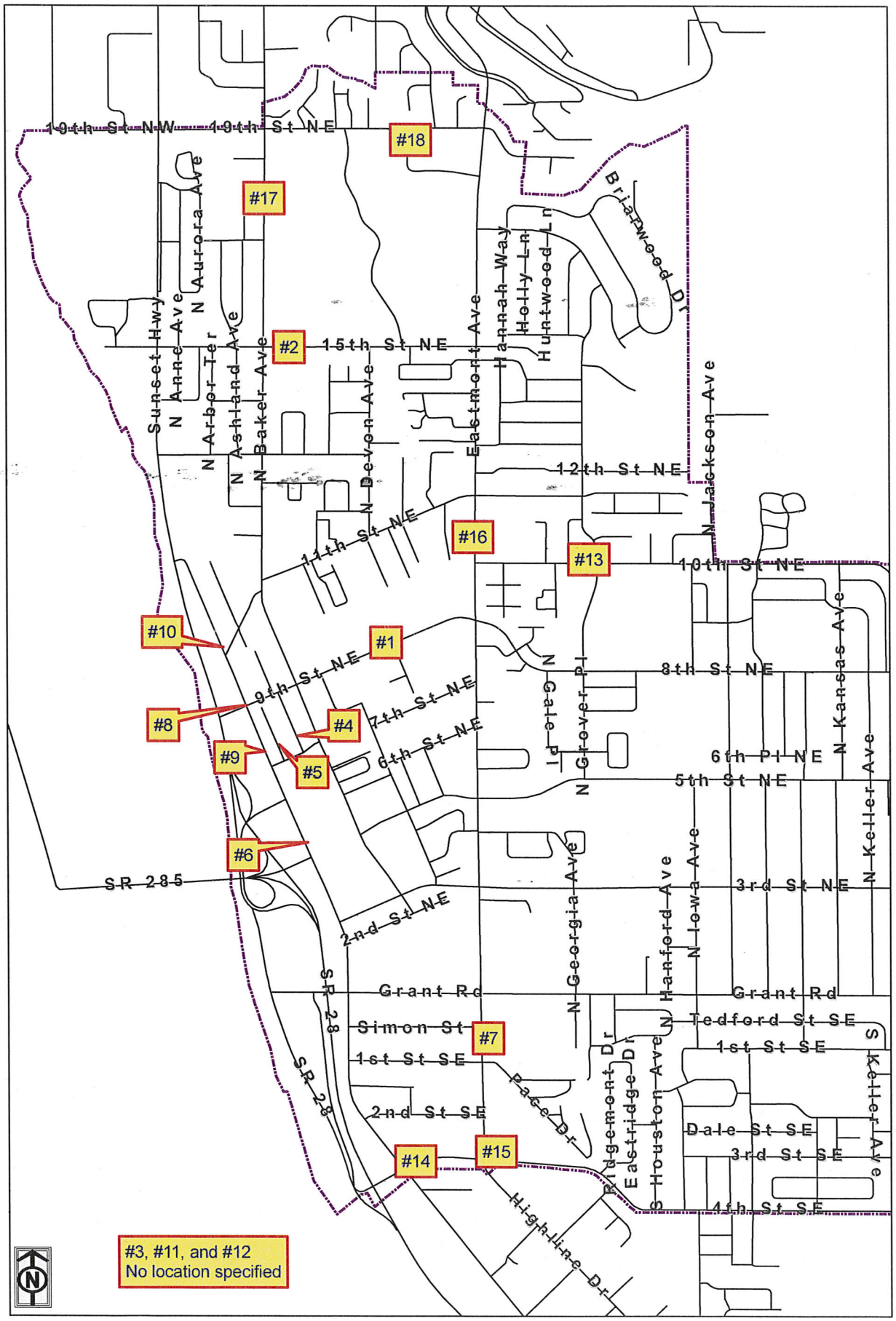
DRAFT REVISED 5-20-2013

Priority Number	Project Title	Project Length	Project Description	Total Estimated Cost	Expenditures						Phase	Phase Start Year	Federal Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds
					Year 1	Year 2	Year 3	Year 4	Year 5	Year 6							
1	9th Street Preservation	0.57	Grind and overlay with asphalt. Some minor areas of repair. ADA upgrades.	616,000	542,000						CN	2013	STP	440,000			102,000
2	15th Avenue Preservation	0.49	Grind and overlay with asphalt. Some minor areas of repair. ADA upgrades. School zone signing / beacon.	352,000	310,000						CN	2013	STP	220,000			90,000
3	Citywide Saftey Improvments		Install larger stop signs with flashing beacons, programmable school zone speed limit signs, and permanent radar speed feedback signs.	250,000	215,000						CN	2013	STP	250,000			0
4	French Street Improvement Project	0.14	Construct sidewalks and stormwater conveyance. Asphalt overlay.	425,000	425,000						ALL	2014	CBDG	378,500			46,500
5	Hamilton Street Improvement Project	0.13	Construct sidewalks and stormwater conveyance. Asphalt overlay.	400,000	400,000						ALL	2014					400,000
6	Valley Mall Parkway Preservation From 9th Street NE to Grant Road	0.70	Asphalt preservation project. Grind and overlay with asphalt.	1,100,000	132,000	968,000					PE CN	2014 2015	STP(U)	951,500			148,500
7	Highline Drive - Clinic to Farm and Ranch Store (west side)	0.06	Construct sidewalks and stormwater conveyance.	90,000		90,000					ALL	2015					90,000
8	9th Street NE and Valley Mall Parkway Traffic Signal	0.00	4-leg traffic signal to replace existing 4-way stop.	375,000						375,000	ALL	2019			TIB	318,750	56,250
9	Valley Mall Parkway Enhancement - Stage 1 From 6th Street NE to 9th Street NE	0.24	Widen sidewalks,reconfigure on street parking.	928,000						928,000	ALL	2019	STP(E)	802,720			125,280
10	Valley Mall Parkway Enhancement - Stage 2 From 9th Street NE to SR 28	0.39	Widen sidewalks,reconfigure on street parking.	720,000						720,000	ALL	2019	STP(E)	622,800			97,200
11	Non-Motorized - Various Streets		Provide sidewalks, crosswalks, signal modifications and bicycle facilities.	235,000						1,410,000	ALL	2019			TIB	1,198,500	211,500
12	Pavement preservation projects		Asphalt overlay, chip seal, crack sealing and other methods	5,600,970						5,600,970		2019					5,600,970
13	10th Street NE Reconstruction From Eastmont Avenue to Kentucky Avenue	0.95	Full reconstruction project: center left turn lane, curb, gutter and sidewalk, stormwater conveyance and street illumination.	6,600,000						6,600,000	ALL	2019			TIB	3,300,000	3,300,000
14	Rock Island Road and 3rd Street SE Traffic Signal	0.00	4-leg signal installation.	400,000						375,000	ALL	2019		318,750	TIB		56,250
15	Highline Drive and 3rd Street SE Traffic Signal	0.00	4-leg traffic signal.	400,000						420,000	ALL	2019			TIB	357,000	63,000
16	Eastmont Preservation From 9th Street NE to 15th Street NE	0.62	Asphalt preservation project, type of preservation to be determined based on target year, age, and condition.	400,000						400,000	ALL	2019	STP(U)	346,000			54,000
17	Baker Avenue Reconstruction From 15th Street NE to Sand Canyon/20th NE	0.60	Full reconstruction project. Center turn lane, curb, gutter, and sidewalk, stormwater conveyance and street illumination. Fish passage at Sand Canyon.	3,500,000						3,500,000	ALL	2019			TIB	2,975,000	525,000
18	19th Street Reconstruction From Baker Avenue to Eastmont Avenue	0.57	Full reconstruction project. Center turn lane, curb, gutter and sidewalk, stormwater conveyance and street illumination.	3,500,000						3,500,000	ALL	2019			TIB	2,975,000	525,000
			Totals	25,891,970	2,024,000	1,058,000	0	0	0	23,828,970	0	38,320	0	4,330,270	0	11,124,250	11,491,450

City of East Wenatchee

Six Year Transportation Improvement Program - 2014 to 2019

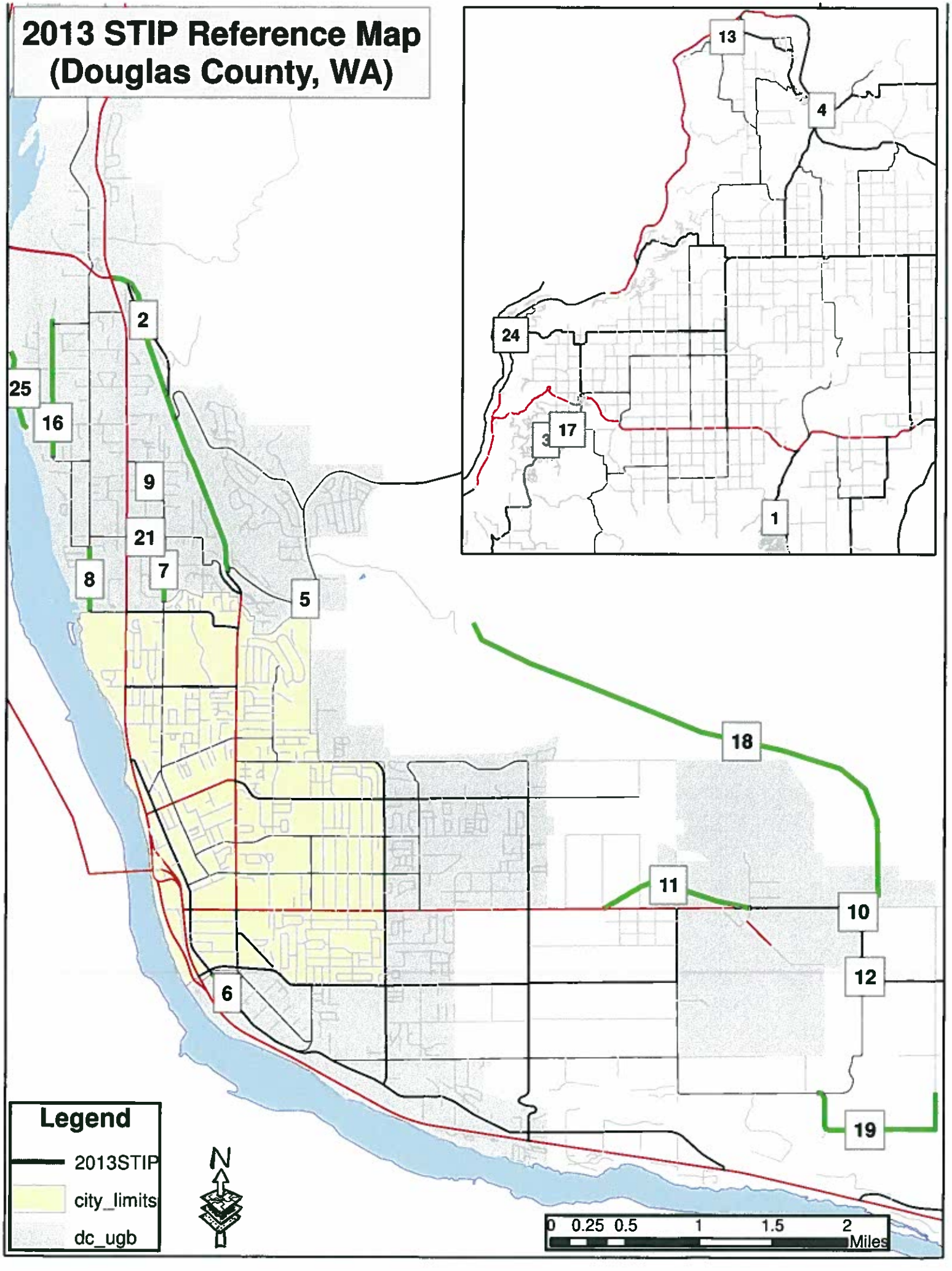
Exhibit B



0 235470 940 Feet

5/20/2013

This map is intended for general purposes only. The City of East Wenatchee makes no representation as to the accuracy or current condition of the data shown on this map.


2013 STIP Reference Map
(Douglas County, WA)
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Summary of Douglas County STIP Projects from 2013 to 2018 six Year Transportation Improvement Program sheets from WSDOT (October 17, 2012)

Priority Number	Project Title	Project Description	Total Estimated Cost
DC2	Eastmont Ave Extension	Construct Eastmont Ext. from milepost 2.29 of Eastmont Ave. to the intersection of SR-28/US 2; include a connection to N. Baker Ave.	5,000,000
DC5	Badger Mtn Road Realignment	Slide repair	4,000,000
DC6	Rock Island Rd.	Widening from East Wenatchee city limits to Eller St.	1,272,000
DC7	N. Baker Ave.-City Limits to 23rd St. NE	Major widening, safety and traffic operation improvement	2,650,000
DC8	Cascade Ave. NW-19th St. NW to Wilshire Ave.	Widening and safety improvement from 19th St. NW to Wilshire Ave.	3,000,000
DC9	Feil Place-Canal Crossing	Bridge replacement on Feil Place at MP 0.38	140,000
DC10	Grant Rd/S. Van Well Intersection Safety Improvement Project	Intersection reconstruction	610,000
DC11	Grant Rd. Realignment	Road realignment	13,000,000
DC12	S. Van WellAve/4th St. SE Intersection Safety Improvement Project	Intersection reconstruction	660,000
DC16	NW Empire Ave.-27th St. NW to 35th St. NW	Reconstruction to add capacity to NW Empire Ave.	2,650,000
DC18	Bench Rd. Study	Study the viability of creating a new road that bypasses East Wenatchee to connect Badger Mtn. Rd. to N. Nile Ave.	150,000
DC19	12th St. SE Improvement Project-10th St. SE to S. Ward Ave.	Connect 10th St. SE to S. Ward Ave. and will include widening, realignment and reconstruction of the existing road	1,000,000
DC21	23rd St. NE Reconstruction-SR-28 to N. Baker Ave.	Reconstruction to improve sight distance, widen and enhance pedestrian facilities	1,415,888

Client:	City of East Wenatchee
Project:	Combined Capital Facility Plan
Subject:	Douglas County Sewer District Probable Cost for ERU
Summary:	UGA Focus Area 1
Projected ERU:	112
Engineer:	Mark Miller
Date:	5/10/2013

Item	Project	Quanity	Unit	Unit Price	Total Cost
	Upsize Fancher Lift Station				
1	Upsize Fancher Lift Station tc	1	LS	$ 100,000	$ 100,000
	Total Estimated Direct Cost				$ 100,000
	Mobilization/Demob			7.0%	$ 7,000
	Contractor Office Overhead			4.0%	$ 4,000
	Contractor Profit			6.0%	$ 6,000
	Bond and Insurance			2.0%	$ 2,000
	Subtotal				$ 119,000
	Contingency			25.0%	$ 29,750
	Sales Tax			8.2%	$ 9,758
	Current (2013) Total Estimated Construction Cost				$ 158,508
	Engineering Design and Construction Mgt./Observation			28.0%	$ 44,382
	Admin/Legal			2.0%	$ 3,170
	Current (2013) Total Estimated Project Cost				$ 206,060
	Esclation to Time of Construction			1	$ 5,770
	TOTAL ESTIMATED PROJECT COST (2014)				**$ 211,830**

Client: City of East Wenatchee
Project: Combined Capital Facility Plan
Subject: Douglas County Sewer District Probable Cost for ERU
Summary: UGA Focus Area 2
Projected ERU: 609
Engineer: Mark Miller
Date: 5/10/2013

Item	Project	Quanity	Unit	Unit Price	Total Cost
	Upsize Summerplace Lift Station				
1	Upsize Summerplace Lift Station to accomoc	1	LS	$ 150,000	$ 150,000
	Grant Road Truck Line Capacity Increase (U7)				
2	Upsize 2140 lf of 15" gravity sewer in Grant	2140	LF	$ 140	$ 299,600
3	Concrete Manholes spaced every 250 lf	10	EA	$ 4,500	$ 45,000
	SR 28 Truck Line Capacity Increase near WWTP (U5)				
4	Upsize 466 of 24" gravity sewer near WWTP	466	EA	$ 200	$ 93,200
5	Concrete Manhole Replacement	2	EA	$ 4,500	$ 9,000
	Total Estimated Direct Cost				$ 596,800
	Mobilization/Demob			7.0%	$ 41,776
	Contractor Office Overhead			4.0%	$ 23,872
	Contractor Profit			6.0%	$ 35,808
	Bond and Insurance			2.0%	$ 11,936
	Subtotal				$ 710,192
	Contingency			25.0%	$ 177,548
	Sales Tax			8.2%	$ 58,236
	Current (2013) Total Estimated Construction Cost				$ 945,976
	Engineering Design and Construction Mgt./Observation			28.0%	$ 264,873
	Admin/Legal			2.0%	$ 18,920
	Current (2013) Total Estimated Project Cost				**$ 1,229,768**

Date: 5/10/2013

Item	Project	Quanity	Unit	Unit Price	Total Cost
	Hydro Park Lift Station (200 GPM)				
1	Proposed 200 gpm lift station located near HydroPark	1	LS	$ 400,000	$ 400,000
2	350 of 6" forcemain to the Proposed lower Witte LS	350	LF	$ 70	$ 24,500
3	2500 lf of 10" gravity (Proposed LS to Mary St along SR28)	2500	LF	$ 100	$ 250,000
4	Concrete Manholes spaced every 250 lf	10	EA	$ 4,500	$ 45,000
5	3000 lf of 12 gravity (Mary St. to Kentucky along SR28)	3000	LF	$ 110	$ 330,000
6	Concrete Manholes spaced every 250 lf	12	EA	$ 4,500	$ 54,000
7	Boring 12" Steel Casing (crossing SR28)	1	LS	$ 100,000	$ 100,000
	Lower Witte Lift Station (500 GPM)				
8	Proposed 500 gpm lift station	1	LS	$ 500,000	$ 500,000
9	700 lf of 8" forcemain	700	LF	$ 80	$ 56,000
	Upper Witte Lift Station (750 GPM)				
10	Proposed 750 gpm lift station	1	LS	$ 650,000	$ 650,000
11	5200 lf of 10" forcemain in shared trench	5200	LF	$ 80	$ 416,000
12	5200 lf of 12" forcemain in shared trench	5200	LS	$ 90	$ 468,000
	SR 28 Truck Line Capacity Increase near WWTP (U5)				
13	Upsize 466 of 24" gravity sewer near WWTP	466	EA	$ 200	$ 93,200
14	Concrete Manhole Replacement	2	EA	$ 4,500	$ 9,000
	Total Estimated Direct Cost				$ 3,395,700
	Mobilization/Demob			7.0%	$ 237,699
	Contractor Office Overhead			4.0%	$ 135,828
	Contractor Profit			6.0%	$ 203,742
	Bond and Insurance			2.0%	$ 67,914
	Subtotal				$ 4,040,883
	Contingency			25.0%	$ 1,010,221
	Sales Tax			8.2%	$ 331,352
	Current (2013) Total Estimated Construction Cost				$ 5,382,456
	Engineering Design and Construction Mgt./Observation			28.0%	$ 1,507,088
	Admin/Legal			2.0%	$ 107,649
	Current (2013) Total Estimated Project Cost				**$ 6,997,193**

Client: City of East Wenatchee
Project: Combined Capital Facility Plan
Subject: Douglas County Sewer District Probable Cost for ERU
Summary: UGA Focus Area 4
Projected ERU: 1286
Engineer: Mark Miller
Date: 5/10/2013

Item	Project	Quanity	Unit	Unit Price	Total Cost
	Hydro Park Lift Station (90 GPM)				
1	Proposed 90 gpm lift station located near Hy	1	LS	$ 250,000	$ 250,000
2	350 of 4" forcemain to the Proposed lower V	350	LF	$ 70	$ 24,500
3	2500 lf of 10" gravity (Proposed LS to Mary	2500	LF	$ 100	$ 250,000
4	Concrete Manholes spaced every 250 lf	10	EA	$ 4,500	$ 45,000
5	3000 lf of 12 gravity (Mary St. to Kentucky al	3000	LF	$ 110	$ 330,000
6	Concrete Manholes spaced every 250 lf	12	EA	$ 4,500	$ 54,000
7	2500 lf of 8" gravity (Proposed flow from Ke	2500	LF	$ 100	$ 250,000
8	Concrete Manholes spaced every 250 lf	10	EA	$ 4,500	$ 45,000
9	Boring 12" Steel Casing (crossing SR28)	1	LS	$ 100,000	$ 100,000
	Lower Witte Lift Station (350 GPM)				
10	Proposed 350 gpm lift station	1	LS	$ 400,000	$ 400,000
11	700 lf of 6" forcemain	700	LF	$ 70	$ 49,000
	Upper Witte Lift Station (650 GPM)				
12	Proposed 650 gpm lift station	1	LS	$ 600,000	$ 600,000
13	5200 lf of 10" forcemain in shared trench	5200	LF	$ 80	$ 416,000
14	5200 lf of 12" forcemain in shared trench	5200	LS	$ 90	$ 468,000
	SR 28 Truck Line Capacity Increase near WWTP (U5)				
15	Upsize 466 of 24" gravity sewer near WWTP	466	EA	$ 200	$ 93,200
16	Concrete Manhole Replacement	2	EA	$ 4,500	$ 9,000
	Total Estimated Direct Cost				$ 3,383,700
	Mobilization/Demob			7.0%	$ 236,859
	Contractor Office Overhead			4.0%	$ 135,348
	Contractor Profit			6.0%	$ 203,022
	Bond and Insurance			2.0%	$ 67,674
	Subtotal				$ 4,026,603
	Contingency			25.0%	$ 1,006,651
	Sales Tax			8.2%	$ 330,181
	Current (2013) Total Estimated Construction Cost				$ 5,363,435
	Engineering Design and Construction Mgt./Observation			28.0%	$ 1,501,762
	Admin/Legal			2.0%	$ 107,269
	Current (2013) Total Estimated Project Cost				**$ 6,972,466**

Client: City of East Wenatchee
Project: Combined Capital Facility Plan
Subject: Douglas County Sewer District Probable Cost for ERU
Summary: UGA Focus Area 5
Projected ERU: 2475
Engineer: Mark Miller
Date: 5/10/2013

Item	Project	Quanity	Unit	Unit Price	Total Cost
Upgrade Cascade Ave Lift Station from 830 to 1000 gpm					
1	Uprade pumps to 1000 GPM	1	LS	$ 200,000	$ 200,000
Build Empire Gravity Extension					
2	Proposed 18" Gravity Sewer - 2000 lf	2000	LF	$ 140	$ 280,000
3	Proposed 15" Gravity Sewer - 2000 lf	2000	LF	$ 105	$ 210,000
4	Concrete Manhole Replacement	12	EA	$ 4,600	$ 55,200
	Total Estimated Direct Cost				$ 745,200
	Mobilization/Demob			7.0%	$ 52,164
	Contractor Office Overhead			4.0%	$ 29,808
	Contractor Profit			6.0%	$ 44,712
	Bond and Insurance			2.0%	$ 14,904
	Subtotal				$ 886,788
	Contingency			25.0%	$ 221,697
	Sales Tax			8.2%	$ 72,717
	Current (2013) Total Estimated Construction Cost				$ 1,181,202
	Engineering Design and Construction Mgt./Observation			28.0%	$ 330,736
	Admin/Legal			2.0%	$ 23,624
	Current (2013) Total Estimated Project Cost				**$ 1,535,562**