



Preliminary Research on the
Potential for Annexation in South Kelso

Prepared September 15th, 2015 by Anthony Taylor

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1.0 Introduction

This report has been compiled for City Manager, Steve Taylor, and the City of Kelso. This report highlights the potential for annexation in four pockets of unincorporated South Kelso, and will go over the properties in their current state and infrastructure, the financial gains and costs, and the effects of annexation.

2.0 Methodology

To conduct this report, Professor Gregg Dohrn of Eastern Washington University brought undergraduate student, Anthony Taylor, to conduct the bulk of data collection, acquiring information on the four study areas and the effects of their potential annexation. For each of the four study areas, parcel data was collected through the Cowlitz County Assessors website with the help of NetMaps. Information was gathered on each parcel's: address, parcel number, property owner, neighborhood code, tax code, land and improvement value assessment, and the current and future land use. This data was entered into a master spreadsheet on Microsoft Excel.

Data on water, sewer, and storm water systems were obtained through the City of Kelso and mapped onto ArcMap, visually displaying the geospatial data. Using the current and previous Levy and Property Tax rates, obtained from the Cowlitz County Assessor, income for these specific study areas were calculated onto the master spreadsheet.

To gather information on the area's sidewalk and road conditions, Anthony Taylor, with help from Skylar Masters, conducted on the ground surveying of the sidewalk and current road conditions. The road conditions were rated from 1-3. A 1 on the scale was a road with significant structural and surface damage, a 2 was one with moderate to light structural and surface damage, and a 3 were roads with little to no damage whatsoever. This survey was then plotted onto ArcMap to display the data geospatially.

Information on septic tank systems within the area were collected by Anthony Taylor, with the help of Megan Erickson from the Cowlitz County Health Department. The County Health Department provided data on which parcels in the study area: (1) contained septic tanks systems, (2) which septic tank systems had a previous code compliance issue, and (3) which septic systems have failed or been repaired. This data was added to the master spreadsheet and then applied to ArcMap, providing a geospatial visual of the septic tank systems in the area.

Data on water and sewer services were obtained through the City of Kelso's Department of Finance, with the help of Brian Butterfield. Using the Finance Department's network, Anthony Taylor, calculated 2013 and 2014 annual water and sewer rates for each utility account within the study area, by adding up the sum of these monthly bills for the years of 2013 and 2014 and then recording that data on the master spreadsheet.

Information on Per Capita Revenues and Transportation Benefit Districts were collected from the Municipal Research and Services Center's Budget Suggestions for 2016.

3.0 Data

Figure 1.1: South Kelso Annexation Study Area

Figure 1.1



3.1 Parcel Data

The 198 acre study area is home to 266 households, or 612 individuals (2010 Census). Most of the area is residential properties, with a few commercial uses, located on South Pacific. The study area is composed of four areas located within the surrounding City of Kelso. These areas can be seen above in Figure 1.1 as the four highlighted areas. The areas have been labeled 1-4, starting from the western most parcels and moving east. The largest of the areas is the second, with the fourth area being the second largest, followed by the first and then third areas. Parcel Data was collected using the Cowlitz County Assessor's NetMaps, a web based GIS service in which users can obtain parcel data by finding their specific parcel on the parcel layer. The information provided, and recorded onto the master spreadsheet, for each parcel were a parcel's address, parcel number, property owner, neighborhood code, tax code, assessed land and improvement values, and current use. Information on the county future land uses has been provided by the Cowlitz County Building and Planning's County Future Land Use Map (March 2015), while information on the City of Kelso's future land use in the area has been provided by the City of Kelso.

Table 1.1: South Kelso Annexation Area Parcel Assessed Values

Area #	Parcels	Land Values	Improvement Values	Total Assessed Values (Land + Improvements)
Area #1	12	\$346,250	\$148,960	\$ 497,690
Area #2	295	\$9,258,720	\$13,602,110	\$22,860,830
Area #3	2	\$26,450	\$100,220	\$126,670
Area #4	15	\$494,340	\$1,204,080	\$1,698,420
TOTAL	323	\$10,125,760	\$15,055,370	\$25,183,610

As seen above in Table 1, the entire study area contains 323 parcels, with almost all of the parcels located in the second area. Because of this the area with the highest value is the second area followed by the fourth, then first, then third. The total land value within the study areas amount to \$10, 125,760, and with the total improvement of \$15,055,370 the total sum is \$25,183,610.

3.1.1 Current Uses

The following subsection will detail each study area’s current uses. To make this examination more concise current use codes have been grouped according to the activity of the use.

Table 1.2: South Kelso Annexation Area #1 Current Uses

Area #1	Count	Percentage
Residential Activities	5	45.5%
Travel or Movement Activities	1	9.1%
Vacant Land	5	45.5%
TOTAL	11	100.0%

Within Area #1, as seen in Table 1.2 above, out of the total 11 parcels, 45.5% or 5 of the total parcels were used for Residential Activities, with the same amount of parcels, 5, being used as vacant land. The remaining parcel was used as a railroad right of way, and classified under Travel or Movement Activities, at 9.1% of the total parcels. The 2010 Census reported 4 residents within this area.

Table 1.3: South Kelso Annexation Area #2 Current Uses

Area #2	Count	Percentage
Residential Activities	221	75.2%
Vacant Land	45	15.3%
Industrial Activities	21	7.1%
Commercial Activities	6	2.0%
Social, Cultural or Religious Activities	1	0.3%
Institutional Activities	1	0.3%
TOTAL	294	100.00%

Within Area #2, as seen in Table 1.3 above, the total amount of parcels were 294. Of those 294, 75.17% or around ¾ of them were used for residential purposes. The second largest use group were Vacant Lands at, 15.31%. The following uses in descending order were Industrial Activities (7.14%), Commercial Activities (2.04%), Religious Activities (0.34%), and Institutional Activities (0.34%). In 2010 the US Census Bureau reported 590 residents, and 251 households.

Table 1.4: South Kelso Annexation Area #3 Current Uses

Area #3	Count	Percentage
Residential Activities	1	50%
Travel or Movement Activities	1	50%
TOTAL	2	100%

Within Area #3, as seen in Table 1.4, there were two parcels, of which one was classified as a single family residence (Residential Activity), and the other a Diking Right of Way (Travel or Movement Activities). In 2010, the US Census Bureau reported 2 residents in this area.

Table 1.5: South Kelso Annexation Area #4 Current Uses

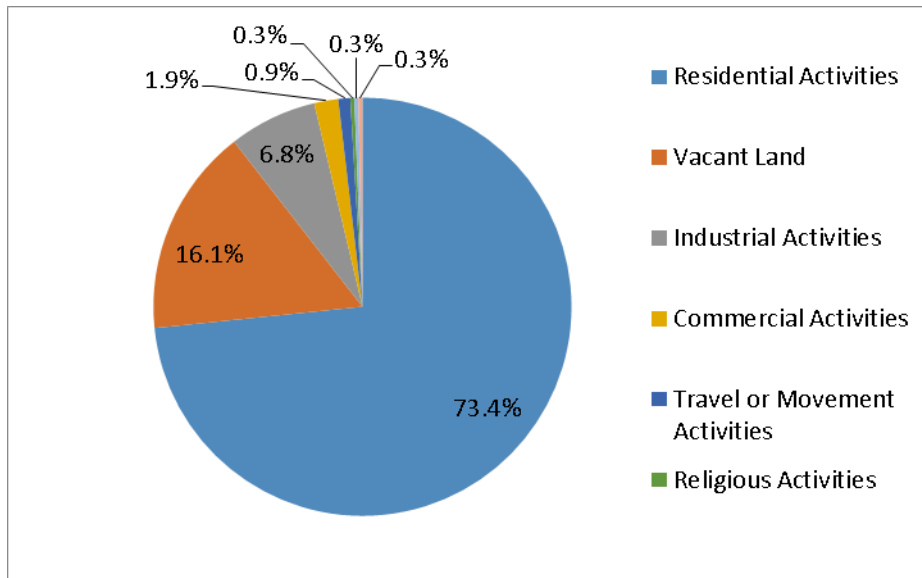
Area #4	Count	Percentage
Residential Activities	10	66.7%
Industrial Activities	1	6.7%
Travel or Movement Activities	1	6.7%
Emergency Response Activities	1	6.7%
Vacant Land	2	13.3%
TOTAL	15	100.0%

Finally, within area #4, as seen in Table 1.5, there was a total amount of 15 parcels. Of these 15 parcels, 10 of them, or 66.7% were being used as Residential Activities. The second largest use was Vacant Lands, at 2, or 13.3% of the total parcels. These were then followed by the remaining three uses which each had one parcel. In 2010, the US Census Bureau reported 16 residents, and 10 households in this fourth study area.

Table 1.6: South Kelso Annexation Area Total Uses

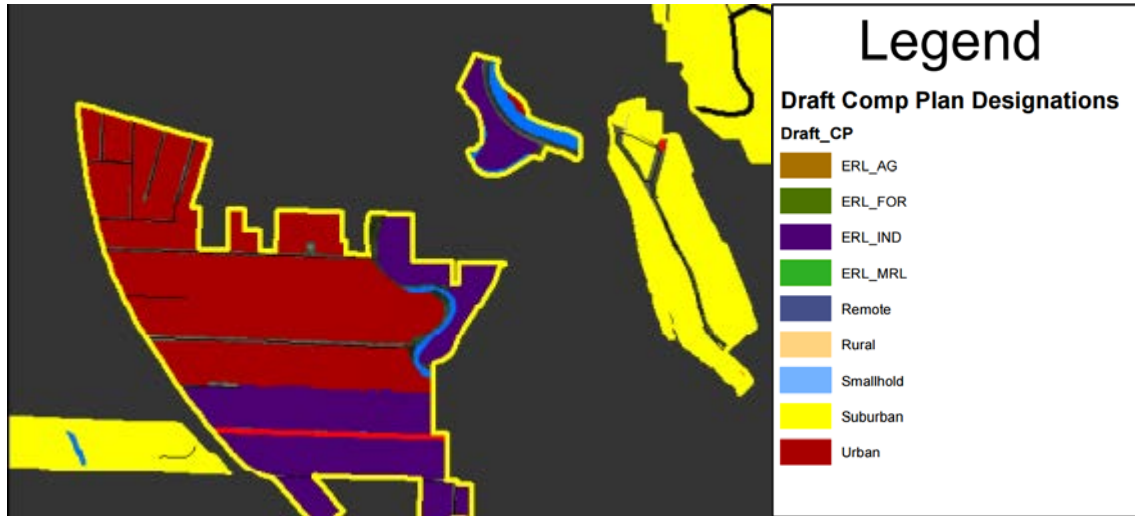
Total Activities	Count	Percentages
Residential Activities	237	73.4%
Vacant Land	52	16.1%
Industrial Activities	22	6.8%
Commercial Activities	6	1.9%
Travel or Movement Activities	3	0.9%
Religious Activities	1	0.3%
Institutional Activities	1	0.3%
Emergency Response Activities	1	0.3%
TOTAL	323	100.0%

Figure 1.6: South Kelso Annexation Area Total Uses Pie Chart



As seen in both Table and Figure 1.6, of the total 323 parcels, the majority of the parcels at 237 or 73.4%, are being used for residential activities. The second largest use at 52 parcels or 16.1% are Vacant Lands, followed by Industrial Activities (6.8%), Commercial Activities (1.9%), Travel or Movement Activities (0.9%), Religious Activities, (0.3%), Institutional Activities (0.3%), and Emergency Response Activities (0.3%).

Figure 1.7: Cowlitz County Future Land Use Map



3.1.2 South Kelso Future Land Use

The future land use designations within the study area have been classified by the City of Kelso into the following uses: Low and High Density Residential, and Industrial. The Cowlitz County Future Land Use Map as seen above in Figure 1.7, is identical to that of the City of Kelso’s, with only a few minor difference, in which Cowlitz County uses Urban and Suburban instead of High and Low Density Residential.

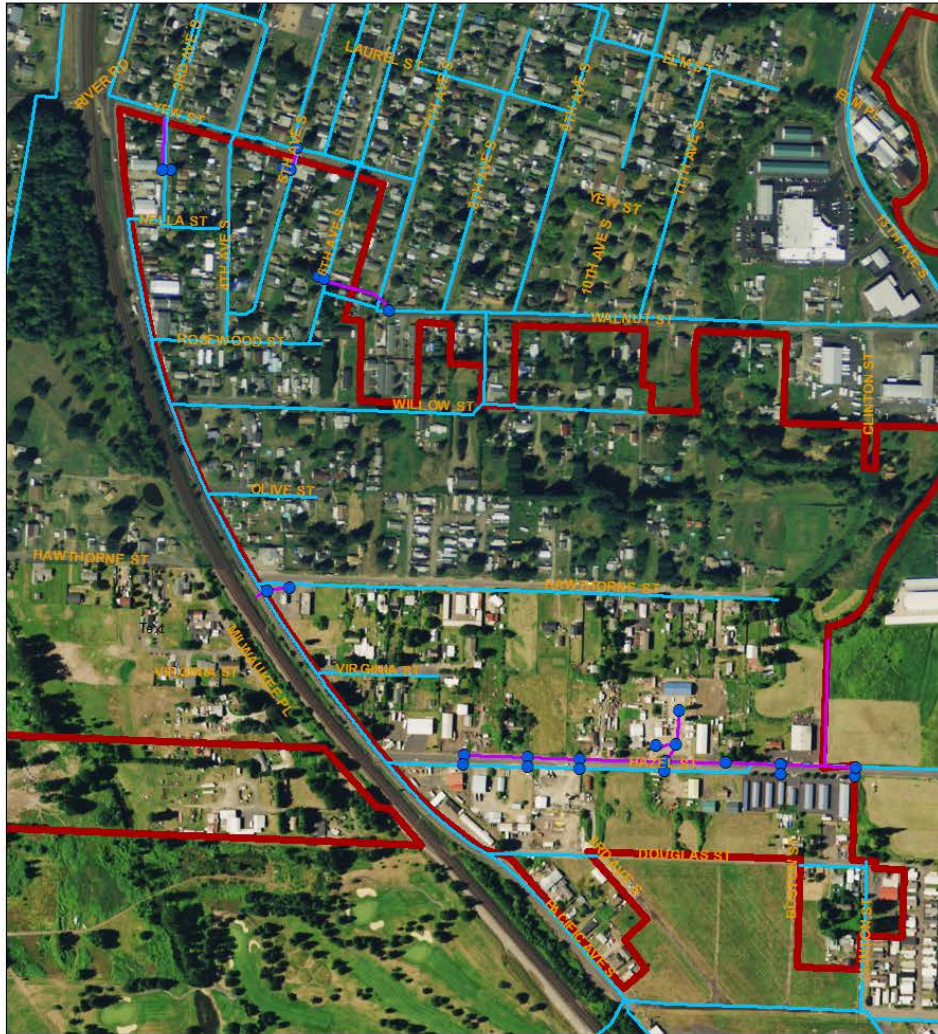
3.1.3 South Kelso Zoning

Cowlitz County Building and Planning do not have a digitized zoning map of the area, however, they do have Section and Township Ranges included in the Cowlitz County website. The study areas encompass four Section Township and ranges: ([34-8-2W](#), [35-8-2W](#), [3-7-2W](#), and [2-7-2W](#)). The first study area is zoned AG-Agriculture. Within the second study area, all lots located on South Pacific until Hazel are zoned C2-Urban Commercial, lots located north of Hawthorne are UR-Urban Residential, and those south of Hawthorne are a mix of ML-Light Manufacturing, and MH-Heaving Manufacturing.

3.2 Infrastructure

For this section we will be examining the current water and sewer systems within the area, the road and sidewalk conditions, emergency services, and storm water infrastructure.

South Kelso County Storm Water and Water for Areas 1 & 2

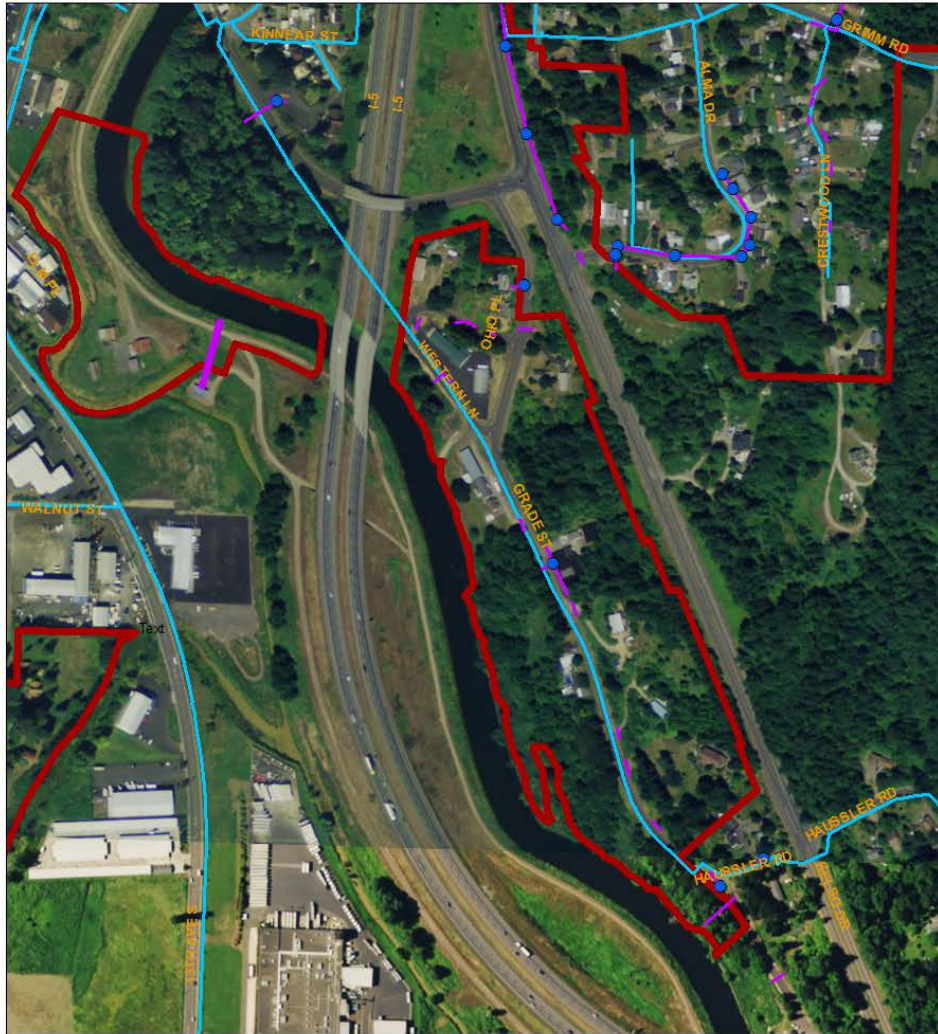


Legend

- Inlets
- StormWaterPipes County Data
- Waterlines



South Kelso County Storm Water and Water for Areas 3 & 4

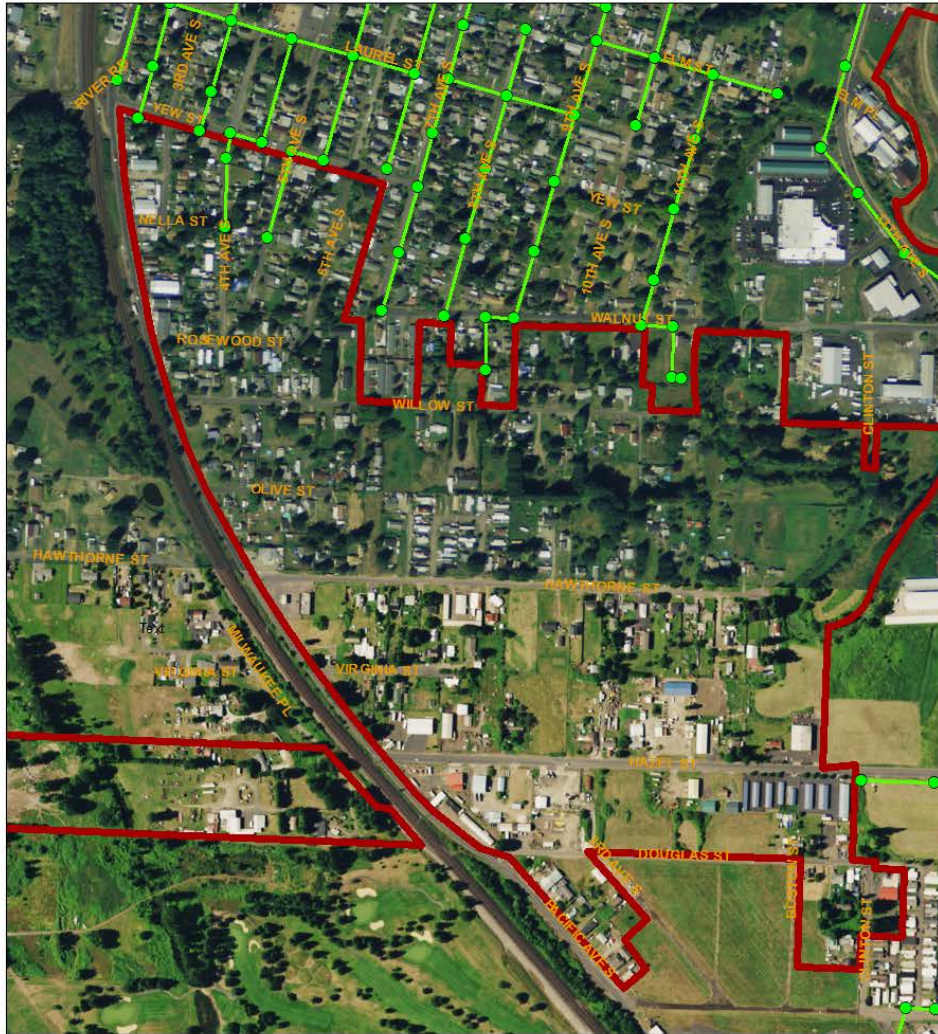


Legend

- Inlets
- StormWaterPipes County Data
- Waterlines



South Kelso County Sewage for Areas 1 & 2

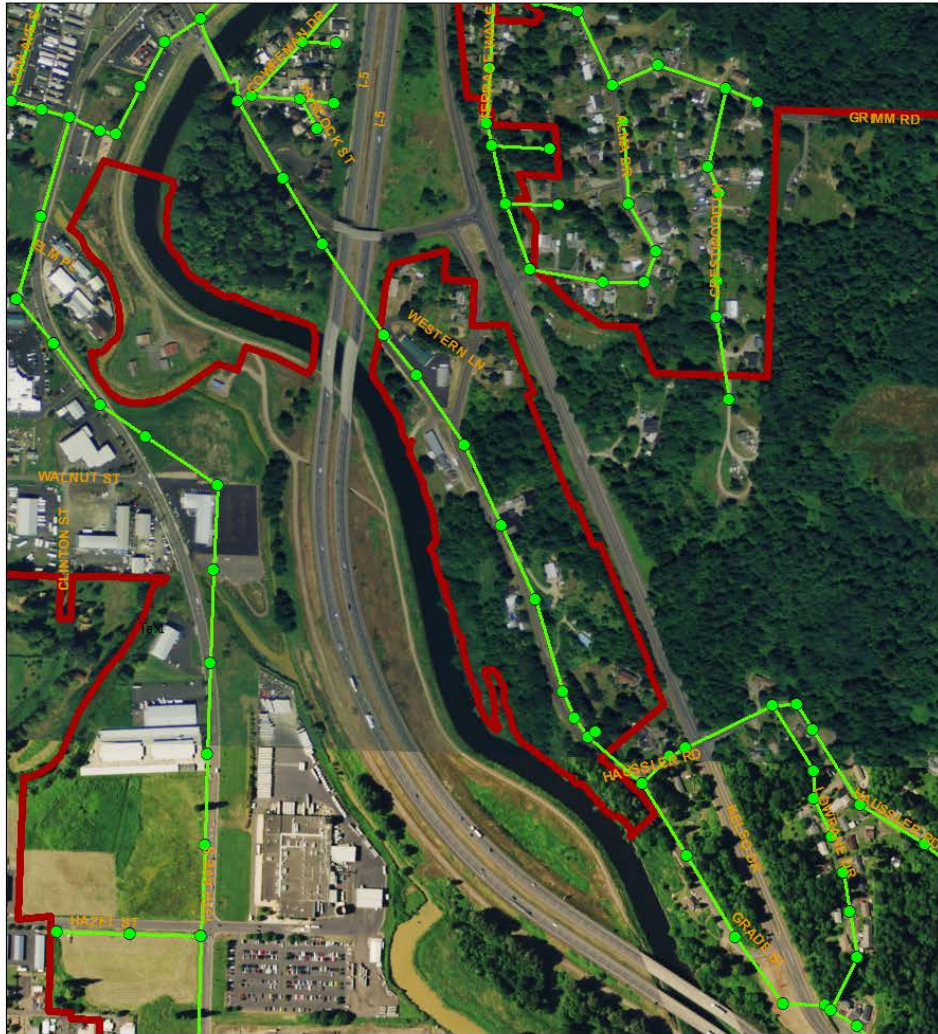


Legend

- Man Holes
- Sewage Pipes



South Kelso County Sewage for Areas 3 & 4



Legend

- Man Holes
- Sewage Pipes



3.2.1 Water, Well, and Sewer Systems

As seen in the GIS Map on the previous page, all of the areas, except Area #1 have existing water infrastructure. The only area serviced by a sewer system is Area #4, and a few properties in Area #2. The rest of the parcels rely off of septic systems for waste disposal.

3.2.2 Gutter, Swale, and Storm Water

As seen in both the South Kelso County Sewer and Water Infrastructure maps, storm water inlets are located primarily along Hazel, and in the northeast corner of the second study area. Storm water systems such as gutters and piping along Hazel, and Walnut, with another located in the third area, with a runoff into the Coweeman River. The fourth study area contains multiple storm water pipes and inlets

3.2.3 Emergency Services

With the help of Deanna Wells from Cowlitz County 9-1-1, information on 911 calls from 2014 was obtained on the vicinity of Area #2. A 2,000 foot radius was drawn from a central parcel in the study area to get information on the calls in the area. Therefore there is some overlap into city boundaries. Calls made to the 9-1-1 center are rated by priority from 1-4, with 1 being of the highest priority.

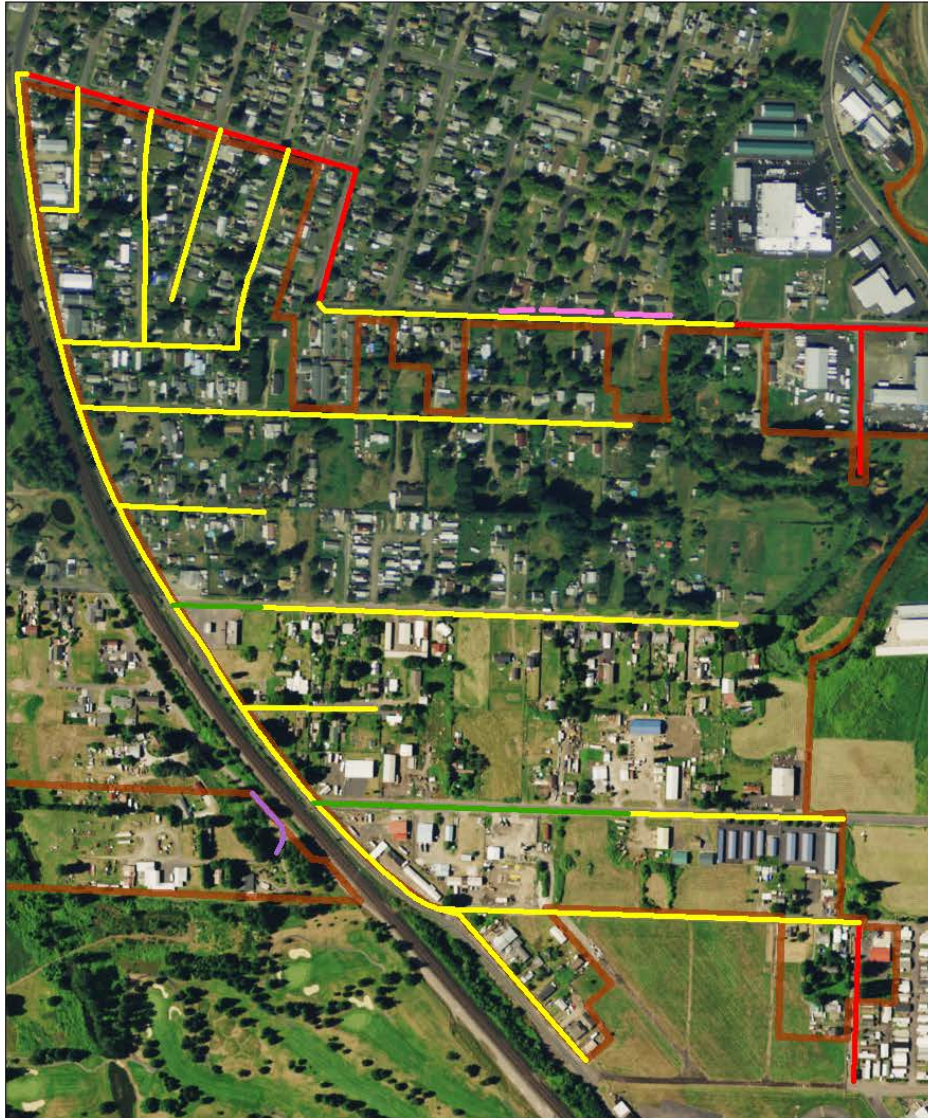
There were 1276 calls in 2014 from this radius, of those calls, 174 were priority 1 calls, of which a majority or 131 were EMS and Fire Department related (these are always ranked priority level 1), leaving the remaining 43 which were police responses. This area also had 306 priority level 2 calls, 333 priority level 3 calls, and 458 priority level 4 calls.

Of these 1276 calls, 647 were responded to by Kelso Police Department, 486 by Cowlitz County Sherriff's Office, 131 by EMS/Fire, and 12 by Longview Police Department. When only looking at law enforcement, 57% of all calls in the area were responded to by Kelso Police Department, followed by the Sherriff's Office at 42%.

Responses are determined by the Master Street Address Guide, GIS, and by tax base. However, sometimes responses to in progress calls are responded to by both the closest law enforcement officer and the jurisdictional office.



South Kelso County Road Conditions for Areas 1 & 2

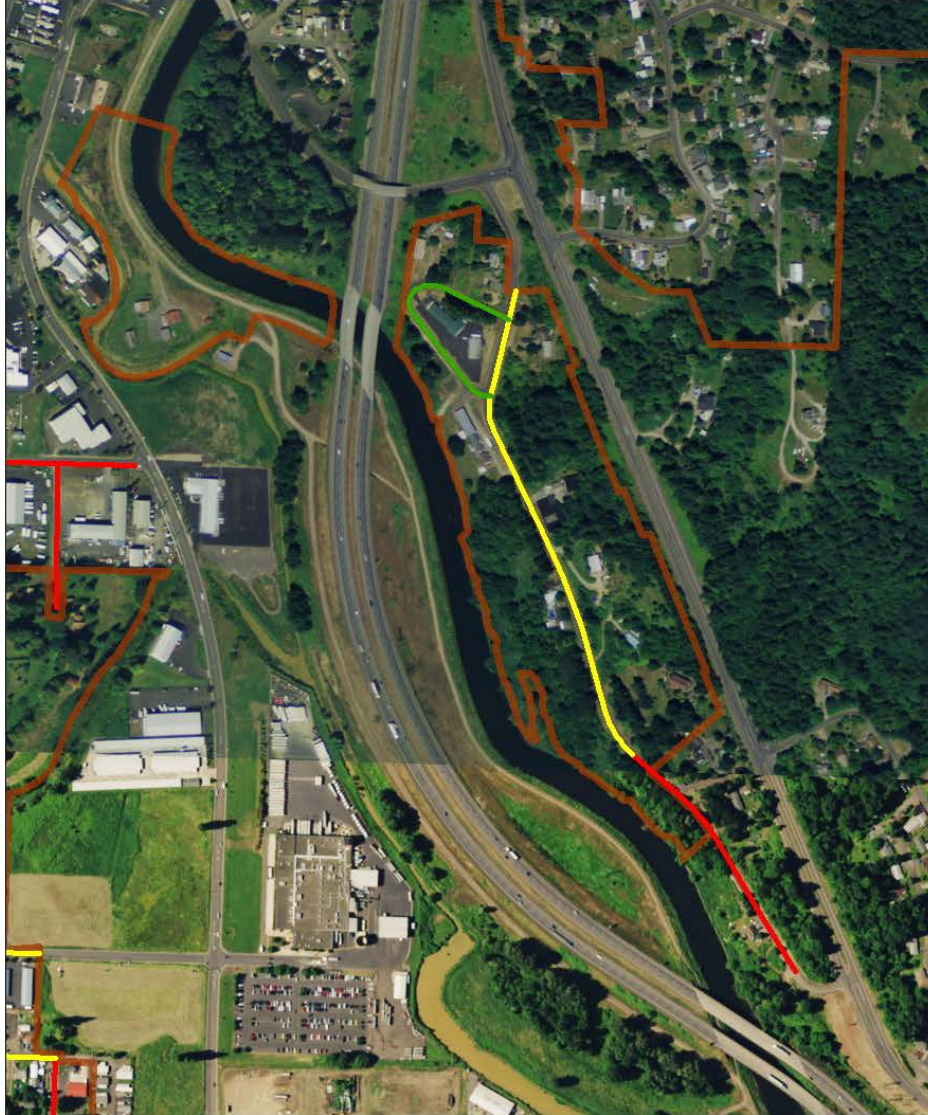


Legend

- Unpaved
- Sidewalks
- Good Road Conditions
- Moderate Road Conditions
- Severe Road Conditions



South Kelso County Road Conditions for Areas 3 & 4



Legend

- Unpaved
- Sidewalks
- Good Road Conditions
- Moderate Road Conditions
- Severe Road Conditions



3.2.4 Road Conditions and Sidewalks

Road Conditions in the area were recorded and ranked from 1-3. A 1 on the scale was a road with significant structural and surface damage, a 2 was one with moderate to light structural and surface damage, and a 3 were roads with little to no damage whatsoever.

Most of the level 1's, or severely damaged roads, were located in the northern part of area #2 along Yew, and down 7th. Another area of severe damage was on the eastern most part of Walnut and down Clinton Street. Within Area #4, there was an area of major severe damage in which the road appears to be sliding down the cliff and has been severely distorted; this is half way down Grade Street, heading south.

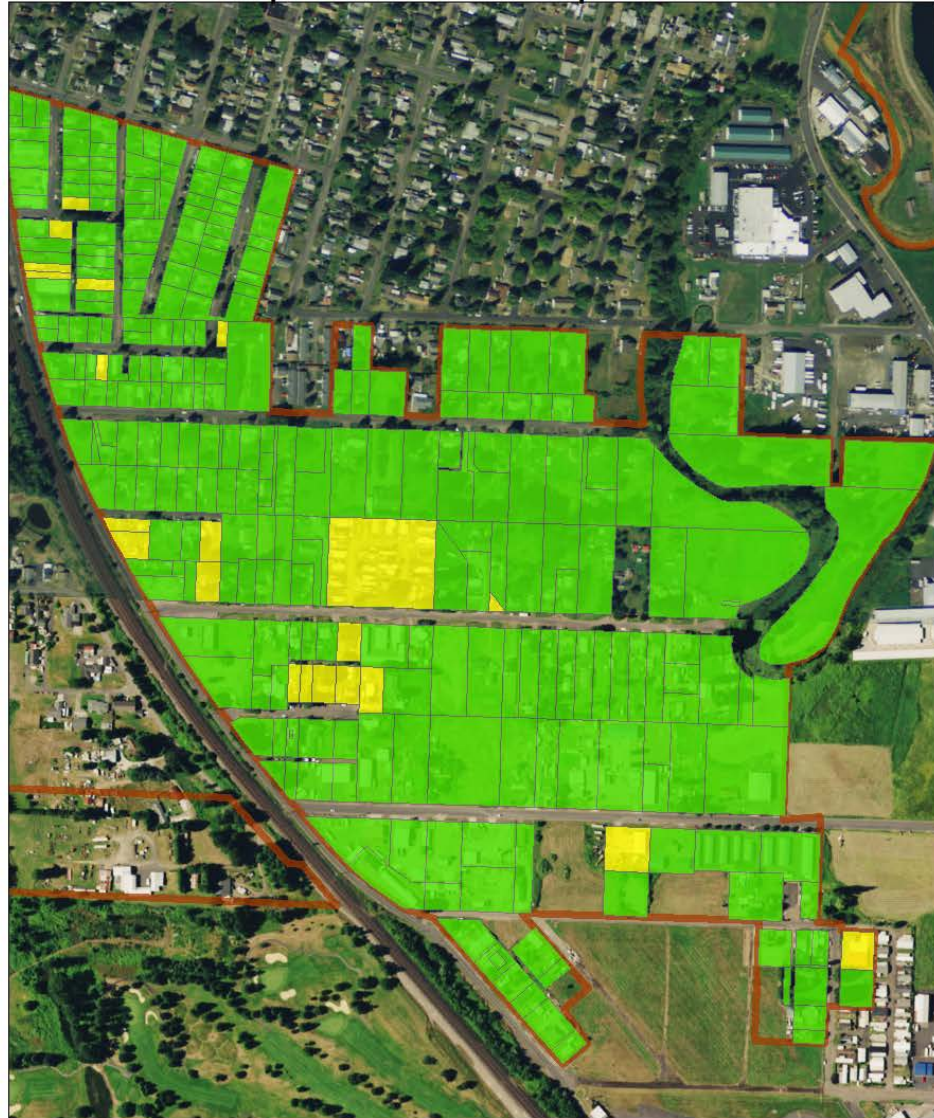
As seen in the map on the previous page. Most of the study area was Level 2; there were mainly surface damages that had been recently covered with chip seal. Because of this, and the nature of the survey, there could possibly be structural damage but this could not be found out through a quick visual survey.

Only a few areas, as seen on the previous page, were Level 3. In particular, the beginning of Hawthorne, half of Hazel, and all of Western Lane were all Level 3. The only sidewalk located within the vicinity is on the other side of the 2nd study area along, Walnut.



3.3 Potential Implications

The following section shall conduct an investigation into the potential implications annexation would present to the City of Kelso. Of these implications, the current state of septic tank systems and the effects on community health, and the potential for nuisance abatement issues will be examined further.

South Kelso County Septic Code Compliance



Legend

-  Code Compliance Issue
-  No Code Compliance Issue



South Kelso County Septic System Failures



Legend

 Septic Repairs or Failures



3.3.1 Septic Code Compliance and Failures

The first map highlights parcels with current or former Code Compliance Issues. Code compliance issues are determined by code enforcement through complaints on a system that is dysfunctional to the code, whether that be an unreported failure, or incorrect tank and drain field size. The second map which highlights failures or repairs have been reported to the Cowlitz County Environmental Health Unit and documented as a failure or repair. Because of the lack of sewer systems within the majority of the study area, most of the properties are utilizing septic tank systems. Unfortunately, most of these septic systems are past their suggested lifetime of 30 years, and are located on very dense and small parcels. It is not unreasonable to assume that there have or will be more septic failures. This poses a problem for the future health in the area, as the land and the parcels themselves are not suitable for septic tanks. The installation of a sewage system would have to be seriously considered in the area, and could end up with a very high but necessary cost.

3.3.2 Nuisance Abatement Issues

Another issue that may arise during annexation is the processing of nuisance abatements. Just recently Cowlitz County has begun a code enforcement program coordinated between Building and Planning, the Environmental Health Unit, the Sheriff's Office, and the Humane Society. Before this code enforcement was done through local complaints which were directed towards specific agencies. Because these areas have been living under a different set of codes, the city of Kelso would have to undertake a coordinated effort with the county and other local actors to help raise awareness on code enforcement and nuisance abatement issues.

3.3.3 Brownfield and Contaminated Sites

After checking with the Washington State of Ecology, there were no known brownfields or contaminated sites within or around the study areas.

3.4 Financial Analysis

This section of the report shall serve as a financial analysis of the four areas, and their levy and utility rates, currently and after annexation. This analysis will be examining the net gains and losses on three actors: the City of Kelso, Cowlitz County, and the property owner. The property owner used in this study is an individual who lives in the second study area, has a total assessed value of \$71,330, and pays \$462 for water and \$1076 for sewer.

3.4.1 Levy Rates

Table 1.7: Pre and Post Annexation 2015 Consolidated Levies

Levy Rates	Pre-Annexation	Post-Annexation	Change
City of Kelso	N/A	\$335,057	\$55,090
Cowlitz County	\$317,961	\$279,967	\$ -37,994
Property Owner	\$969	\$1,000	\$31

Within Cowlitz County, the entire county is separated into Tax Code Areas, or TCAs. These TCAs are determined by geography, and each has their own specific levy rates. These Levy Rates are unique in their coding, which is determined by their geographic area. These codes are broken down into taxing districts which include the county current expense, state levy, county or city, school district, port district, fire district, cemetery district, and E.M.S. Not included in these consolidation rates are the dike rates, mosquito control, noxious weed, and storm water utility. **These additional rates would not change upon annexation and are therefore excluded from the totals.**

The areas under examination are in TCA 830. In TCA 830 for the year of 2015, the consolidated levy is made up of the County Current Expense, State Levy, County Road Tax, Kelso School District, Port of Longview District, and Fire District #2. Properties falling under TCA 830 pay 13.598590 dollars for every 1,000 dollars of properties total assessed value, not including diking, mosquito control, noxious weed, and storm water utility.

Some properties where the property owner is disabled, or elderly, the owner is eligible for an exemption from paying for the school districts, these properties within the study area are listed as 830E and their consolidated levy rate is 7.97995. However, their real rate of taxation is determined by their income, and property value, therefore tax payments vary for those under tax code 830E. Billing information pertaining to these properties has been retrieved on an individual basis, with the help of the Cowlitz County Assessor.

If annexed these properties would fall under the 800 tax code and pay an increase of 0.439586 cents, to a total of 14.038176 dollars for every 1,000 dollars of total property value.

If these areas were to undergo annexation, based on the 2015 payables, **Cowlitz County would experience a net loss of \$37,994**, as a result of losing the County Road tax. In turn, **the City of Kelso would end with a net gain of \$55,090** in new property taxes.

At the property owner level, a household with an 830 TCA, with a total assessed value of \$71,330 who would pay \$969.00 for 2015 within the county, would experience an increase of \$31 on their property tax after annexation into the City of Kelso.

3.4.2 Utility Rates

With the help of the City of Kelso’s Finance Department, the utility rates for the four areas were collected for the financial years of 2013 and 2014. For the financial year of 2013 water service to those outside the city limits was charged at a rate of \$30.97 plus an additional \$4.54 for every 100 cubic feet of water. This rate compared to those in the city (\$20.65 plus \$3.03) is a third more than what it would be if these properties were within the city. The same goes for the 2014 rates of \$33.30 plus \$4.89 for those outside the city, and \$22.20 plus \$3.26 for those within. Included within these calculations is the city’s 10% utility tax rate.

In 2013 the city of Kelso collected approximately \$115, 275.63 in water utilities and \$21,406.23 in sewer utilities, from the study area. In 2014 these were increased to approximately \$121,905.02 for water utilities, and \$22,766.56 for sewer utilities.

Table 1.8: South Kelso 2013 Utility Rates Pre and Post Annexation

Utility Type	2013	Annexed 2013	2014	Annexed 2014
Water	\$115,276	\$76,850	\$121,905	\$81,270
Sewer	\$21,406	\$14,271	\$22,767	\$15,178

If these areas were annexed these rates would drop as seen in Table 2.1, **the city would see a net loss of a 1/3 or approximately \$38,425 to \$40,635 in water utilities and approximately, \$7,135 to \$7,589 in sewer utilities.** In turn, these parcels if annexed would be subject towards the City of Kelso Storm water utility fee. In \$2015 this bimonthly fee was \$17.82. These 323 parcels would each pay an annual rate of \$107, **adding up to approximately \$34,535 in potential revenue to the city.**

At the property owner level, a household in the county paying \$462 for water and \$1076 for sewer would pay \$308 for water and \$718 for sewer, and an additional \$107 for stormwater, after annexation.

4.0 Financial Summary & Conclusion

If annexation were to occur this table summarizes both the net losses and gains with three parties: the City of Kelso, Cowlitz County, and the property owner. For the purposes of this summary the property owner is the one used in the previous financial analysis with a total assessed value of \$71,330, and \$462 for water and \$1076 for sewage. For this summary the values for the 2015 consolidated city of Kelso levy, 2014 water and sewer utilities, 2016 per capita revenue for towns and cities, and the Transportation Benefit District (TBD) fee have all been included for each three parties. The 2016 Per Capita Revenue was obtained from the Municipal Research and Services Center’s Budget Suggestions for 2016, and then multiplied by the 2010 Census count of 612 individuals to get the increase in funds for the City of Kelso, and loss of funds from Cowlitz County. The Transportation Benefit District totals were determined by multiplying the 2010 Census count of 612 by \$20, the TBD fee for the City of Kelso.

Table 1.9: South Kelso Finance Summary Table

	2015 Consolidated Levy	2014 Water Utility	2014 Sewer Utility	2015 Stormwater Utility	2016 Per Capita Revenue	TBD	Totals
City of Kelso	\$55,090.00	\$-40,635	\$-7,589	\$34,535	\$21,946	\$12,240	\$75,587
Cowlitz County	\$-37,994	N/A	N/A	N/A	\$-3,512	N/A	\$-41,506
Property Owner	\$31	\$-154	\$-359	\$107	N/A	\$20	\$-355

As seen above in Table 1.9, if all of the four study areas were annexed into the city of Kelso, the city would experience a net gain of \$75,587; Cowlitz County would experience a net loss of \$41,506 in both County Road tax and 2016 per capita revenues; and the property owner would experience a decrease in living cost as a result of a dramatic decrease in utility cost.

Both the city of Kelso and property owner come out ahead in terms of net gains and losses. The city experiences an increase in revenues from the Stormwater utility fee, levy tax, per capita revenues, and transportation benefit district fees, while the property owner experiences a dramatic decrease in utilities. The property owner will also have access to the Kelso City Library which is \$70 a year for non residents.

Although the city of Kelso would experience an increase in revenue, the costs associated with the installation of a sewer pump and sewage infrastructure in the area and road repairs can easily eclipse this net gain with a high price tag. However, something needs to be done for the residents living in this area it is only a matter of who and when.