

13.03
Water Rates / Billing

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13.03.010 Charges for Water Use

The city hereby establishes a water utility rate set in the current published City of Winlock Rate Schedule.

13.03.020 Billing of Charges

Utility rates and charges for each water connection shall be computed on a bi-monthly basis. The amount billed shall be included on the water sewer bill as a separate line item. The city shall bill the owner of the property for the payment of utility rates and charges specified in the current published City of Winlock Fee Schedule, however the owner may have the bills mailed to the tenant or agent, but this shall not relieve the owner from liability for utility rates and charges.

13.03.030 Nonpayment of Bills – Water Service Discontinuance Conditions

The city shall have the right and privilege to discontinue water service to any premises for nonpayment of service charge for use of the water system in the same manner and subject to the same terms as now and hereafter prescribed by law for discontinuance of water service for nonpayment of water bills; and/or the city shall have the right to pursue the filing of and foreclosing of the lien(s) in accordance with the provisions of this chapter, the ordinances of the City of Winlock, and the laws of the State of Washington for any unpaid and delinquent bills.

13.03.040 Nonpayment of Bills – Penalties for Delinquency

- A.** The billing date is defined as the last day of the month in which the bill is sent or mailed to the property owner or his/her/its designee.
- B.** The billing due date is the twentieth (20th) of the following month.
- C.** Late notices are mailed out on the twenty first (21st) of the month that the payment is due. A late fee will apply per the current published City of Winlock Rate Schedule. If the date falls on a weekend the late notices will be mailed out on the following Monday.
- D.** Bills are due and payable no later than the close of business on the 28th day of the month that the payment is due. A fee will apply to all unpaid balances per the current published City of Winlock Rate Schedule. If the date falls on a weekend the payment must be received by the close of business the following Monday. A lien may be placed upon the property being served and water service will be discontinued until paid in full including all fees and charges. The city clerk may send written notice of filing to the property owner of record.

13.03.050 Consumer Deposit

Any consumer (property owner or tenant) desiring water services from the city shall make a request for such service at the office of the City Clerk-Treasurer. Each consumer desiring such service shall pay the city a deposit per the current published City of Winlock Rate Schedule for each water service requested, the same to be paid at the time the request of service is made. Said deposit or deposits shall be refunded upon termination of water service, provided all service charges or water and sewer connection charges have been paid in full by the consumer. If any of said charges have not been paid, the deposit shall be credited to the payment thereof and the

balance, if any, refunded to the consumer. If a deficiency remains after application of the deposit for credit to said charge, water service shall not be resumed to the premises of the consumer until all utility charges for said premises, are fully paid.

13.03.060 Service Charge for Meter Re-reading

Whenever the consumer requests that his/her/its meter be re-read and such re-reading is had, if there are no errors in the original reading and the meter is operating correctly, the consumer shall pay a service charge per the current published City of Winlock Rate Schedule for each re-reading.

13.03.070 Service Charge for Temporary Non Emergency Shut Off and Turn On

A service charge shall apply for all non-emergency turn off and turn on of water per the current published City of Winlock Rate Schedule.

13.03.080 NSF Fees

A fee shall be charged per the current City of Winlock Rate Schedule for all checks returned for non-sufficient funds. If more than one NSF check is received within a one year period an alternate form of payment will be required by using cash, money order or credit card.

13.03.090 Additional Water Service Installation Charges

In addition to the forgoing rates and charges for water service, property owner shall pay the cost of installing pipes, meter boxes, pertinent meters, connections, valves, and appurtenances including materials and labor plus a twenty percent (20%) administrative fee.

The hook-up or connection charge, or charges for modification of the water system as herein provided, shall become due and payable at the time such connection or hook-up is completed, and if not paid on or before such date, the same shall be delinquent and shall bear interest at a rate of one percent (1%) per month until paid full.

13.03.100 Utility Rate Adjustment

Upon prompt discovery of unusually excessive utility rates caused by the malfunction of a utility users system, including broken water lines, the customer may petition the City Council for an adjustment of the utility billing. Each petition shall be examined on a case by case basis. It shall be the burden of the customer to prove that the excessive billing was the product of a malfunction and that the customer notified the city of the malfunction as soon as practicable. Provided, however, that no utility billing shall be adjusted below the customers average billing for the prior six (6) months. Provided further that no billing shall be adjusted if the customer has failed to correct the utility malfunction within seven (7) days of notice of such malfunction by the city and the city has inspected the repairs within that time frame.

13.03.110 Fire Standby Protection Charges

All fire standby protection devices shall be metered at the owner's expense. There shall be a charged to, and paid by, users within or without the City of Winlock having metered automated sprinkler systems, metered stand pipes, metered fire hydrants or metered fire lines for fire protection a usage fee set forth in the most current published City of Winlock Rate Schedule.

13.03.120 Winlock Cemetery District

Winlock Cemetery District No. 1 shall pay the sum of Twenty-four and no/100 dollars (\$24.00) per year for water service.

13.03.130 Fire District Maintenance and Service Fee

Lewis County Fire District No. 15 shall pay the sum of Three Thousand Six Hundred and 00/100 dollars (\$3600.00) per year for annual maintenance and service fee for City water.

13.03.140 Low Income Senior Discount

Low income Senior Citizen Customers residing in a single family residence age sixty two (62) years or older who's total income does not exceed the sum of One Thousand Five Hundred and 00/100 Dollars (\$1,500.00) gross per month for one individual or the sum of Two Thousand and 00/100 (\$2000.00) per month gross for a single individual and spouse or co-tenant. The flat rate water service charge inside

the corporate city limits of the City of Winlock shall be one half (1/2) of the rate currently charged for non-metered water users. The metered service charges for customers inside the corporate city limits of the City of Winlock shall be on half (1/2) of the currently charged meter service rate for the first three hundred (300) cubic feet of water used.

13.03.150 Low Income Disabled Discount

Disabled persons residing in a single family residence fifty (50) years of age and older who's total income does not exceed One Thousand and 00/100 Dollars (\$1,000.00) gross per month for one individual or the sum of One Thousand Five Hundred and 00/100 Dollars (\$1,500.00) gross per month for a single individual and spouse or co-tenant the flat rate water service charge inside the corporate city limits of the City of Winlock shall be one half (1/2) of the rate currently charged for non-metered water users. The metered service charges for customers inside the corporate city limits of the City of Winlock shall be one half (1/2) of the currently charged meter service rate for the first three hundred (300) cubic feet of water used.

13.04
Sewer System

- 13.04.010 Definitions**
- 13.04.020 New Sewer Connection**
- 13.04.030 New Sewer Connection Discount**
- 13.04.040 Estimated ERU's**
- 13.04.050 New Sewer Connection Purchase**
- 13.04.060 Commencement of Bi-Monthly Billings**
- 13.04.070 Abandoned Sewer Connection**
- 13.04.080 Pro-Rated Reconnection Fee**
- 13.04.090 Forfeiture of Hookup Fees**
- 13.04.100 Unused Sewer Service**
- 13.04.110 Temporary Non-Use of Sewer Connection**
- 13.04.120 Responsibility for Maintenance**

13.04.010 Definitions

A. "ERU" (Equivalent Residential Unit) shall have the following meaning. A unit of water capacity determined by the City to be equivalent to the capacity (or average capacity) typically used by, or allocated to a single-family residential unit. For the purpose of this Ordinance, an ERU of water capacity shall be equal to 1,000 cubic feet of water per month calculated on yearly consumption of up to 12,000 cubic feet as determined through the standard water billing process.

13.04.020 New Sewer Connection

The connection fee to the Sewer system of the city is established in the current published City of Winlock Rate Schedule and shall be placed into a capital improvement fund for future improvements to the water system.

13.04.030 New Sewer Connection Discount

In order to receive the discounted rate the sewer connection must be made while the ditch is open and the mainline accessible. The discount does not relieve the property owner from paying for the time and materials to install the connection plus a twenty percent (20%) administrative fee.

13.04.040 Estimated ERU's

The number of ERU's used to determine the charges for sanitary sewage connection fees shall be based on actual water usage if such usage history is available. If no history or information is available, the number of ERU's shall be based on the estimated usage, as determined by the applicant.

In the cases where estimates of water usage are used to determine the number of ERU's, an evaluation of usage shall occur after the connection is in use for six (6) months, and again in one (1) year or when sufficient usage history is otherwise available to determine the actual usage and number of ERU's. If, after an evaluation has been made, the actual determined number of ERU's is greater than the estimated number of ERU's, additional charges for connection fees shall be required and levied against the owner or person responsible for the connection. If any such additional charges are not paid, the water and wastewater service shall be subject to disconnection. If in the initial year, after an evaluation has been made, the actual determined number of ERU's is less than the estimated number of ERU's, a reimbursement equal to the difference in charges for the estimated number of ERU's and charges for the actual number of ERU's shall be made to the owner or person responsible for the connection.

13.04.050 New Sewer Connection Purchase

All connection fees to the sewer system can only be purchased at the time of issuance of the building permit.

13.04.060 Commencement of Bi-Monthly Billings

Monthly utility billings will commence no later than six (6) months from the date of issuance of the building permit unless the lot owner has obtained a building permit extension, in which case utility bills will commence no later than twelve (12) months from the date of the original building permit.

13.04.070 Abandoned Sewer Connection

A sewer connection (hookup) is considered abandoned if it has not been in service for a period of twelve (12) months.

If a hookup is disconnected or abandoned the hookup fee is forfeited to the city and the property owner will not be authorized to have sewer service without paying the lesser of (1) a new hookup fee, or (2) a pro-rated fee (described below). The owner shall also be required to pay any and all costs such as parts and labor required for reconnection to the system plus a twenty percent (20%) administrative fee.

13.04.080 Pro-Rated Reconnection Fee

To calculate the “pro-rated fee” multiply the number of billing cycles from the first day of non-service by the current sewer rate and reduce by fifty percent (50%).

13.04.090 Forfeiture of Hookup Fees

Any sewer service that is unused or disconnected for more than twelve (12) months shall be deemed to be abandoned and any hookup fee previously paid to the city shall be forfeited and the customer will not be authorized to have sewer service without paying a new hookup fee. The customer shall also be required to pay any and all costs such as parts and labor as required for reconnection to the system plus a twenty percent (20%) administration fee.

13.04.100 Unused Sewer Service

A sewer service shall not be considered “unused” when a customer pays a bi-monthly dormant fee in an amount equal to one-half of the current bi-monthly fee provided however, that the customer may not pay a dormant fee for more than ninety-six (96) months. It shall be the sole responsibility of the customer to request a dormant fee billing.

13.04.110 Temporary Nonuse of Sewer Connection

A residential customer may apply to the city for a temporary partial suspension of the monthly charge for a period of time, not to exceed six (6) months, during which the customer’s residence is vacant and the sewer service is unused. The customer must submit a written application to the city setting forth the period of time in which the residence will be vacant. A customer shall be granted only one partial

suspension of fees during any calendar year. The customer's application for partial suspension must be submitted to the city not less than five (5) days in advance of the requested suspension.

During the period of the approved partial suspension the customer's water base charge shall be reduced to fifty percent (50%) of the current charges plus applicable Utility Tax. Provided, however, that in the event it is discovered by the city that the customer has used the water service during the approved suspension period, the customer shall be responsible for the full water charges during the period of suspension, together with the surcharge of twenty-five percent (25%).

13.04.120 Responsibility for Maintenance

From and after the date of completion of hookup or connection for sewer services as herein provided, the property owner shall be solely responsible for the maintenance and repair of said sewer line from the property line or curbside to the building or residence upon the property and the City of Winlock shall be responsible for maintenance and repair of the main or lateral from the property line or curbside at the point of such hookup or connection.

13.05
Sewer Rates / Billing

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- 13.05.060 Capping Sewer**
- 13.05.070 Additional Sewer Service Installation Charges**
- 13.05.080 NSF Fees**
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13.05.010 Charges for Sewer Use

The city hereby establishes a sewer utility rate set in the current published City of Winlock Rate Schedule.

13.05.020 Billing of Charges

Utility rates and charges for each sewer connection shall be computed on a bi-monthly basis. The amount billed shall be included on the water sewer bill as a separate line item. The city shall bill the owner of the property for the payment of utility rates and charges specified in the current published City of Winlock Fee Schedule, however the owner may have the bills mailed to the tenant or agent, but this shall not relieve the owner from liability for utility rates and charges.

13.05.030 Nonpayment of Bills – Sewer Service Discontinuance Conditions

The city shall have the right and privilege to discontinue sewer service to any premises for nonpayment of service charge for use of the sewer system in the same manner and subject to the same terms as now and hereafter prescribed by law for discontinuance of sewer service for nonpayment of sewer bills; and/or the city shall have the right to pursue the filing of and foreclosing of the lien(s) in accordance

with the provisions of this chapter, the ordinances of the City of Winlock, and the laws of the State of Washington for any unpaid and delinquent bills.

13.05.040 Nonpayment of Bills – Penalties for Delinquency

- A.** The billing date is defined as the last day of the month in which the bill is sent or mailed to the property owner or his/her/its designee.
- B.** The billing due date is the twentieth (20th) of the following month.
- C.** Late notices are mailed out on the twenty first (21st) of the month that the payment is due. A late fee will apply per the current published City of Winlock Rate Schedule. If the date falls on a weekend the late notices will be mailed out on the following Monday.
- D.** Bills are due and payable no later than the close of business on the 28th day of the month that the payment is due. A fee will apply to all unpaid balances per the current published City of Winlock Rate Schedule. If the date falls on a weekend the payment must be received by the following Monday. A lien may be placed upon the property being served and sewer service will be discontinued until paid in full including all fees and charges. The city clerk may send written notice of filing to the property owner of record.

13.05.050 Consumer Deposit

Any consumer (property owner or tenant) desiring sewer services from the city shall make a request for such service at the office of the City Clerk-Treasurer. Each consumer desiring such service shall pay the city a deposit per the current published City of Winlock Rate Schedule for each water service requested, the same to be paid at the time the request of service is made. Said deposit or deposits shall be refunded upon termination of sewer service, provided all service charges or water and sewer connection charges have been paid in full by the consumer. If any of said charges have not been paid, the deposit shall be credited to the payment thereof and the balance, if any, refunded to the consumer. If a deficiency remains after application of the deposit for credit to said charge, water and sewer services shall not be resumed to the premises of the consumer until all utility charges for said premises, are fully paid.

13.05.060 Capping Sewer

Any sewer disconnected, temporarily or otherwise, may be capped by the City of Winlock, and property owner(s) shall pay the cost of labor and materials incidental to such capping.

13.05.070 Additional Sewer Service Installation Charges

For single family dwellings constructed within boundaries of the City's service area, the property owner shall pay the cost of labor and materials plus a twenty percent (20%) administrative fee. For multi-family dwellings constructed within the boundaries of the City's service area, the property owner shall pay the cost of labor and materials plus a twenty percent (20%) administrative fee as well as One Hundred Dollars and 00/100 (\$100.00) for each additional unit more than one (1), provided, no more than four (4) units shall be connected to a single hookup; and provided further, each unit shall be separately charged for monthly use the same as a single-family dwelling for each multi-family dwelling with one actual connection to the main or lateral.

When a building is placed on a lot with an existing sewer connection, the connection may be used at the property owners risk with no additional charge to be made, provided, however, if additional units are connected or there is a change in the use of the property or type of structure, the current published charges shall apply.

13.05.080 NSF Fees

A fee shall be charged per the current City of Winlock Rate Schedule for all checks returned for non-sufficient funds. If more than one NSF check is received within a one year period an alternate form of payment will be required by using cash, money order or credit card.

13.05.090 Low Income Senior Discount

Low income Senior Citizen Customers residing in a single family residence age sixty two (62) years or older who's total income does not exceed the sum of One Thousand Five Hundred and 00/100 Dollars (\$1,500.00) gross per month for one individual or the sum of Two Thousand and 00/100 (\$2000.00) per month gross for a single individual and spouse or co-tenant. The flat rate sewer service charge inside

the corporate city limits of the City of Winlock shall be one half (1/2) of the rate currently charged.

13.05.100 Low Income Disabled Discount

Disabled persons residing in a single family residence, fifty (50) years of age and older who's total income does not exceed One Thousand and 00/100 Dollars (\$1,000.00) gross per month for one individual or the sum of One Thousand Five Hundred and 00/100 Dollars (\$1,500.00) gross per month for a single individual and spouse or co-tenant the flat rate sewer service charge inside the corporate city limits of the City of Winlock shall be one half (1/2) of the rate currently charged.

APPENDIX L

DETAILED COST ESTIMATES

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-01A: Replace Galvanized with 1"**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 4,000.00	\$ 4,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
5	1-inch Water Pipe, Including Fittings	740 LF	\$ 20.00	\$ 14,800.00
6	Additional Pipe Fittings	150 LB	\$ 3.00	\$ 450.00
7	1-inch Gate Valves	4 EA	\$ 300.00	\$ 1,200.00
8	Fire Hydrants	0 EA	\$ 3,800.00	\$ -
9	Connections to Existing	4 EA	\$ 2,500.00	\$ 10,000.00
10	Service Connections	8 EA	\$ 1,300.00	\$ 10,400.00
11	Saw Cutting	750 EA	\$ 2.50	\$ 1,875.00
12	Gravel Backfill	110 TN	\$ 20.00	\$ 2,200.00
13	Foundation Gravel	10 TN	\$ 25.00	\$ 250.00
14	Asphalt Concrete Pavement Repair	20 TN	\$ 160.00	\$ 3,200.00
15	Cold Mix Asphalt	20 TN	\$ 75.00	\$ 1,500.00
16	Crushed Surfacing, Top Course	50 TN	\$ 25.00	\$ 1,250.00
17	Surface Restoration	210 SY	\$ 5.50	\$ 1,155.00
Subtotal:.....				\$ 54,280.00
Sales Tax (7.8%).....				\$ 4,233.84
Subtotal:.....				\$ 58,513.84
Contingency (20%).....				\$ 11,486.16
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 70,000.00
Engineering and Administrative Costs (25%).....				\$ 18,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 88,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-01B: Replace Galvanized with 2"**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 14,000.00	\$ 14,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	2-inch Water Pipe, Including Fittings	2,325 LF	\$ 28.00	\$ 65,100.00
6	Additional Pipe Fittings	700 LB	\$ 3.00	\$ 2,100.00
7	2-inch Gate Valves	9 EA	\$ 500.00	\$ 4,500.00
8	Fire Hydrants	0 EA	\$ 3,800.00	\$ -
9	Connections to Existing	9 EA	\$ 2,500.00	\$ 22,500.00
10	Service Connections	20 EA	\$ 1,300.00	\$ 26,000.00
11	Saw Cutting	2,335 EA	\$ 2.50	\$ 5,837.50
12	Gravel Backfill	530 TN	\$ 20.00	\$ 10,600.00
13	Foundation Gravel	40 TN	\$ 25.00	\$ 1,000.00
14	Asphalt Concrete Pavement Repair	80 TN	\$ 160.00	\$ 12,800.00
15	Cold Mix Asphalt	80 TN	\$ 75.00	\$ 6,000.00
16	Crushed Surfacing, Top Course	180 TN	\$ 25.00	\$ 4,500.00
17	Surface Restoration	710 SY	\$ 5.50	\$ 3,905.00
Subtotal:.....				\$ 182,842.50
Sales Tax (7.8%):.....				\$ 14,261.72
Subtotal:.....				\$ 197,104.22
Contingency (20%):.....				\$ 39,895.79
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 237,000.00
Engineering and Administrative Costs (25%):.....				\$ 59,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 296,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-01C: Replace Galvanized with 4"**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 23,000.00	\$ 23,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 2,000.00	\$ 2,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,500.00	\$ 2,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,500.00	\$ 2,500.00
5	4-inch Water Pipe, Including Fittings	3,300 LF	\$ 38.00	\$ 125,400.00
6	Additional Pipe Fittings	1,250 LB	\$ 3.00	\$ 3,750.00
7	4-inch Gate Valves	9 EA	\$ 750.00	\$ 6,750.00
8	Fire Hydrants	0 EA	\$ 3,800.00	\$ -
9	Connections to Existing	9 EA	\$ 2,500.00	\$ 22,500.00
10	Service Connections	40 EA	\$ 1,300.00	\$ 52,000.00
11	Saw Cutting	3,310 EA	\$ 2.50	\$ 8,275.00
12	Gravel Backfill	990 TN	\$ 20.00	\$ 19,800.00
13	Foundation Gravel	70 TN	\$ 25.00	\$ 1,750.00
14	Asphalt Concrete Pavement Repair	130 TN	\$ 160.00	\$ 20,800.00
15	Cold Mix Asphalt	130 TN	\$ 75.00	\$ 9,750.00
16	Crushed Surfacing, Top Course	290 TN	\$ 25.00	\$ 7,250.00
17	Surface Restoration	1,100 SY	\$ 5.50	\$ 6,050.00
Subtotal:.....				\$ 314,075.00
Sales Tax (7.8%).....				\$ 24,497.85
Subtotal:.....				\$ 338,572.85
Contingency (20%):.....				\$ 67,427.15
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 406,000.00
Engineering and Administrative Costs (25%):.....				\$ 102,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 508,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-01D: Replace Galvanized with 6"**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM		\$ 3,000.00	\$ 3,000.00
2	Trench Excavation Safety Systems	LUMP SUM		\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM		\$ 500.00	\$ 500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM		\$ 500.00	\$ 500.00
5	6-inch Water Pipe, Including Fittings	200 LF		\$ 45.00	\$ 9,000.00
6	Additional Pipe Fittings	100 LB		\$ 3.00	\$ 300.00
7	6-inch Gate Valves	2 EA		\$ 950.00	\$ 1,900.00
8	Fire Hydrants	1 EA		\$ 3,800.00	\$ 3,800.00
9	Connections to Existing	2 EA		\$ 2,500.00	\$ 5,000.00
10	Service Connections	10 EA		\$ 1,300.00	\$ 13,000.00
11	Saw Cutting	310 EA		\$ 2.50	\$ 775.00
12	Gravel Backfill	80 TN		\$ 20.00	\$ 1,600.00
13	Foundation Gravel	10 TN		\$ 25.00	\$ 250.00
14	Asphalt Concrete Pavement Repair	10 TN		\$ 160.00	\$ 1,600.00
15	Cold Mix Asphalt	10 TN		\$ 75.00	\$ 750.00
16	Crushed Surfacing, Top Course	20 TN		\$ 25.00	\$ 500.00
17	Surface Restoration	40 SY		\$ 5.50	\$ 220.00
Subtotal:.....					\$ 43,695.00
Sales Tax (7.8%).....					\$ 3,408.21
Subtotal:.....					\$ 47,103.21
Contingency (20%).....					\$ 9,896.79
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 57,000.00
Engineering and Administrative Costs (25%).....					\$ 14,000.00
TOTAL ESTIMATED PROJECT COST:.....					\$ 71,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-01E: Replace Galvanized with 8"**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 18,000.00	\$ 18,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
5	8-inch Water Pipe, Including Fittings	1,650 LF	\$ 50.00	\$ 82,500.00
6	Additional Pipe Fittings	750 LB	\$ 3.00	\$ 2,250.00
7	8-inch Gate Valves	6 EA	\$ 1,250.00	\$ 7,500.00
8	Fire Hydrants	4 EA	\$ 3,800.00	\$ 15,200.00
9	Connections to Existing	6 EA	\$ 2,500.00	\$ 15,000.00
10	Service Connections	30 EA	\$ 1,300.00	\$ 39,000.00
11	Saw Cutting	2,485 EA	\$ 2.50	\$ 6,212.50
12	Gravel Backfill	750 TN	\$ 20.00	\$ 15,000.00
13	Foundation Gravel	50 TN	\$ 25.00	\$ 1,250.00
14	Asphalt Concrete Pavement Repair	120 TN	\$ 160.00	\$ 19,200.00
15	Cold Mix Asphalt	120 TN	\$ 75.00	\$ 9,000.00
16	Crushed Surfacing, Top Course	170 TN	\$ 25.00	\$ 4,250.00
17	Surface Restoration	320 SY	\$ 5.50	\$ 1,760.00
Subtotal:.....				\$ 241,122.50
Sales Tax (7.8%):.....				\$ 18,807.56
Subtotal:.....				\$ 259,930.06
Contingency (20%):.....				\$ 52,069.95
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 312,000.00
Engineering and Administrative Costs (25%):.....				\$ 78,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 390,000.00

CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-02: SW Campbell Street from SW Lane Street to SE First Street

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM		\$ 6,000.00	\$ 6,000.00
2	Trench Excavation Safety Systems	LUMP SUM		\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM		\$ 500.00	\$ 500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM		\$ 500.00	\$ 500.00
5	6-inch Water Pipe, Including Fittings	420 LF		\$ 45.00	\$ 18,900.00
6	Additional Pipe Fittings	150 LB		\$ 3.00	\$ 450.00
7	Railroad Bore	90 LF		\$ 210.00	\$ 18,900.00
8	6-inch Gate Valves	2 EA		\$ 950.00	\$ 1,900.00
9	Fire Hydrants	2 EA		\$ 3,800.00	\$ 7,600.00
10	Connections to Existing	3 EA		\$ 2,500.00	\$ 7,500.00
11	Service Connections	4 EA		\$ 1,300.00	\$ 5,200.00
12	Saw Cutting	220 EA		\$ 2.50	\$ 550.00
13	Gravel Backfill	160 TN		\$ 20.00	\$ 3,200.00
14	Foundation Gravel	10 TN		\$ 25.00	\$ 250.00
15	Asphalt Concrete Pavement Repair	10 TN		\$ 160.00	\$ 1,600.00
16	Cold Mix Asphalt	10 TN		\$ 75.00	\$ 750.00
17	Crushed Surfacing, Top Course	50 TN		\$ 25.00	\$ 1,250.00
18	Surface Restoration	230 SY		\$ 5.50	\$ 1,265.00
Subtotal:.....					\$ 77,315.00
Sales Tax (7.8%):.....					\$ 6,030.57
Subtotal:.....					\$ 83,345.57
Contingency (20%):.....					\$ 16,654.43
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 100,000.00
Engineering and Administrative Costs (25%):.....					\$ 25,000.00
TOTAL ESTIMATED PROJECT COST:.....					\$ 125,000.00

CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-03: SW Mayer Street from SW Locust Street to SW Canyon Loop.

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 11,000.00	\$ 11,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
5	6-inch Water Pipe, Including Fittings	1,200 LF	\$ 45.00	\$ 54,000.00
6	Additional Pipe Fittings	500 LB	\$ 3.00	\$ 1,500.00
7	6-inch Gate Valves	3 EA	\$ 950.00	\$ 2,850.00
8	Fire Hydrants	3 EA	\$ 3,800.00	\$ 11,400.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	20 EA	\$ 1,300.00	\$ 26,000.00
11	Saw Cutting	1,210 EA	\$ 2.50	\$ 3,025.00
12	Gravel Backfill	450 TN	\$ 20.00	\$ 9,000.00
13	Foundation Gravel	30 TN	\$ 25.00	\$ 750.00
14	Asphalt Concrete Pavement Repair	50 TN	\$ 160.00	\$ 8,000.00
15	Cold Mix Asphalt	50 TN	\$ 75.00	\$ 3,750.00
16	Crushed Surfacing, Top Course	120 TN	\$ 25.00	\$ 3,000.00
17	Surface Restoration	430 SY	\$ 5.50	\$ 2,365.00
Subtotal:.....				\$ 144,640.00
Sales Tax (7.8%).....				\$ 11,281.92
Subtotal:.....				\$ 155,921.92
Contingency (20%).....				\$ 31,078.08
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 187,000.00
Engineering and Administrative Costs (25%).....				\$ 47,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 234,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-04: NE First Street from Fir Street to Griffith Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 6,000.00	\$ 6,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
5	8-inch Water Pipe, Including Fittings	500 LF	\$ 50.00	\$ 25,000.00
6	Additional Pipe Fittings	250 LB	\$ 3.00	\$ 750.00
7	8-inch Gate Valves	5 EA	\$ 1,250.00	\$ 6,250.00
8	Fire Hydrants	2 EA	\$ 3,800.00	\$ 7,600.00
9	Connections to Existing	3 EA	\$ 2,500.00	\$ 7,500.00
10	Service Connections	7 EA	\$ 1,300.00	\$ 9,100.00
11	Saw Cutting	510 EA	\$ 2.50	\$ 1,275.00
12	Gravel Backfill	230 TN	\$ 20.00	\$ 4,600.00
13	Foundation Gravel	20 TN	\$ 25.00	\$ 500.00
14	Asphalt Concrete Pavement Repair	20 TN	\$ 160.00	\$ 3,200.00
15	Cold Mix Asphalt	20 TN	\$ 75.00	\$ 1,500.00
16	Crushed Surfacing, Top Course	50 TN	\$ 25.00	\$ 1,250.00
17	Surface Restoration	190 SY	\$ 5.50	\$ 1,045.00
Subtotal:.....				\$ 77,570.00
Sales Tax (7.8%).....				\$ 6,050.46
Subtotal:.....				\$ 83,620.46
Contingency (20%).....				\$ 16,379.54
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 100,000.00
Engineering and Administrative Costs (25%).....				\$ 25,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 125,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE**

PROJECT D-05: Connect Fire Hydrant Near Cedar Village Apartments to 10-Inch Main on North Side of E Walnut Street

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 500.00	\$ 500.00
5	6-inch Water Pipe, Including Fittings	50 LF	\$ 45.00	\$ 2,250.00
6	Additional Pipe Fittings	50 LB	\$ 3.00	\$ 150.00
7	6-inch Gate Valves	1 EA	\$ 950.00	\$ 950.00
8	Fire Hydrants	0 EA	\$ 3,800.00	\$ -
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	110 EA	\$ 2.50	\$ 275.00
12	Gravel Backfill	20 TN	\$ 20.00	\$ 400.00
13	Foundation Gravel	10 TN	\$ 25.00	\$ 250.00
14	Asphalt Concrete Pavement Repair	6 TN	\$ 160.00	\$ 960.00
15	Cold Mix Asphalt	6 TN	\$ 75.00	\$ 450.00
16	Crushed Surfacing, Top Course	6 TN	\$ 25.00	\$ 150.00
17	Surface Restoration	0 SY	\$ 5.50	\$ -
Subtotal:.....				\$ 11,335.00
Sales Tax (7.8%):.....				\$ 884.13
Subtotal:.....				\$ 12,219.13
Contingency (20%):.....				\$ 2,780.87
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 15,000.00
Engineering and Administrative Costs (25%):.....				\$ 4,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 19,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-06: Front Street from Walnut Street to Campbell Street**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 27,000.00	\$ 27,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 2,000.00	\$ 2,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 3,000.00	\$ 3,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 3,000.00	\$ 3,000.00
5	6-inch Water Pipe, Including Fittings	3,500 LF	\$ 45.00	\$ 157,500.00
6	Additional Pipe Fittings	1,400 LB	\$ 3.00	\$ 4,200.00
7	6-inch Gate Valves	12 EA	\$ 950.00	\$ 11,400.00
8	Fire Hydrants	7 EA	\$ 3,800.00	\$ 26,600.00
9	Connections to Existing	6 EA	\$ 2,500.00	\$ 15,000.00
10	Service Connections	24 EA	\$ 1,300.00	\$ 31,200.00
11	Saw Cutting	3,510 EA	\$ 2.50	\$ 8,775.00
12	Gravel Backfill	1,320 TN	\$ 20.00	\$ 26,400.00
13	Foundation Gravel	90 TN	\$ 25.00	\$ 2,250.00
14	Asphalt Concrete Pavement Repair	150 TN	\$ 160.00	\$ 24,000.00
15	Cold Mix Asphalt	150 TN	\$ 75.00	\$ 11,250.00
16	Crushed Surfacing, Top Course	350 TN	\$ 25.00	\$ 8,750.00
17	Surface Restoration	1,260 SY	\$ 5.50	\$ 6,930.00
Subtotal:.....				\$ 369,255.00
Sales Tax (7.8%).....				\$ 28,801.89
Subtotal:.....				\$ 398,056.89
Contingency (20%).....				\$ 79,943.11
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 478,000.00
Engineering and Administrative Costs (25%).....				\$ 120,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 598,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-07: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 49,000.00	\$ 49,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 3,000.00	\$ 3,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 5,000.00	\$ 5,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 5,000.00	\$ 5,000.00
5	12-inch Water Pipe, Including Fittings	5,560 LF	\$ 65.00	\$ 361,400.00
6	Additional Pipe Fittings	2,800 LB	\$ 3.00	\$ 8,400.00
7	12-inch Gate Valves	7 EA	\$ 2,000.00	\$ 14,000.00
8	Fire Hydrants	11 EA	\$ 3,800.00	\$ 41,800.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	5,570 EA	\$ 2.50	\$ 13,925.00
12	Gravel Backfill	2,930 TN	\$ 20.00	\$ 58,600.00
13	Foundation Gravel	200 TN	\$ 25.00	\$ 5,000.00
14	Asphalt Concrete Pavement Repair	290 TN	\$ 160.00	\$ 46,400.00
15	Cold Mix Asphalt	290 TN	\$ 75.00	\$ 21,750.00
16	Crushed Surfacing, Top Course	670 TN	\$ 25.00	\$ 16,750.00
17	Surface Restoration	2,320 SY	\$ 5.50	\$ 12,760.00
Subtotal:.....				\$ 665,285.00
Sales Tax (7.8%).....				\$ 51,892.23
Subtotal:.....				\$ 717,177.23
Contingency (20%).....				\$ 143,822.77
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 861,000.00
Engineering and Administrative Costs (10%).....				\$ 86,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 947,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-08: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 21,000.00	\$ 21,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
5	12-inch Water Pipe, Including Fittings	2,240 LF	\$ 65.00	\$ 145,600.00
6	Additional Pipe Fittings	1,100 LB	\$ 3.00	\$ 3,300.00
7	12-inch Gate Valves	6 EA	\$ 2,000.00	\$ 12,000.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	2,250 EA	\$ 2.50	\$ 5,625.00
12	Gravel Backfill	1,180 TN	\$ 20.00	\$ 23,600.00
13	Foundation Gravel	80 TN	\$ 25.00	\$ 2,000.00
14	Asphalt Concrete Pavement Repair	120 TN	\$ 160.00	\$ 19,200.00
15	Cold Mix Asphalt	120 TN	\$ 75.00	\$ 9,000.00
16	Crushed Surfacing, Top Course	270 TN	\$ 25.00	\$ 6,750.00
17	Surface Restoration	930 SY	\$ 5.50	\$ 5,115.00
Subtotal:.....				\$ 279,690.00
Sales Tax (7.8%).....				\$ 21,815.82
Subtotal:.....				\$ 301,505.82
Contingency (20%).....				\$ 60,494.18
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 362,000.00
Engineering and Administrative Costs (10%).....				\$ 36,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 398,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-09: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 21,000.00	\$ 21,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
5	12-inch Water Pipe, Including Fittings	2,320 LF	\$ 65.00	\$ 150,800.00
6	Additional Pipe Fittings	1,150 LB	\$ 3.00	\$ 3,450.00
7	12-inch Gate Valves	6 EA	\$ 2,000.00	\$ 12,000.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	2,330 EA	\$ 2.50	\$ 5,825.00
12	Gravel Backfill	1,220 TN	\$ 20.00	\$ 24,400.00
13	Foundation Gravel	80 TN	\$ 25.00	\$ 2,000.00
14	Asphalt Concrete Pavement Repair	120 TN	\$ 160.00	\$ 19,200.00
15	Cold Mix Asphalt	120 TN	\$ 75.00	\$ 9,000.00
16	Crushed Surfacing, Top Course	280 TN	\$ 25.00	\$ 7,000.00
17	Surface Restoration	970 SY	\$ 5.50	\$ 5,335.00
Subtotal:.....				\$ 286,510.00
Sales Tax (7.8%):.....				\$ 22,347.78
Subtotal:.....				\$ 308,857.78
Contingency (20%):.....				\$ 62,142.22
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 371,000.00
Engineering and Administrative Costs (10%):.....				\$ 37,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 408,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-10: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 15,000.00	\$ 15,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	1,870 LF	\$ 50.00	\$ 93,500.00
6	Additional Pipe Fittings	850 LB	\$ 3.00	\$ 2,550.00
7	8-inch Gate Valves	5 EA	\$ 1,250.00	\$ 6,250.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	1,880 EA	\$ 2.50	\$ 4,700.00
12	Gravel Backfill	850 TN	\$ 20.00	\$ 17,000.00
13	Foundation Gravel	60 TN	\$ 25.00	\$ 1,500.00
14	Asphalt Concrete Pavement Repair	90 TN	\$ 160.00	\$ 14,400.00
15	Cold Mix Asphalt	90 TN	\$ 75.00	\$ 6,750.00
16	Crushed Surfacing, Top Course	210 TN	\$ 25.00	\$ 5,250.00
17	Surface Restoration	730 SY	\$ 5.50	\$ 4,015.00
Subtotal:.....				\$ 196,415.00
Sales Tax (7.8%):.....				\$ 15,320.37
Subtotal:.....				\$ 211,735.37
Contingency (20%):.....				\$ 42,264.63
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 254,000.00
Engineering and Administrative Costs (10%):.....				\$ 25,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 279,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-11: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 11,000.00	\$ 11,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
5	8-inch Water Pipe, Including Fittings	1,400 LF	\$ 50.00	\$ 70,000.00
6	Additional Pipe Fittings	650 LB	\$ 3.00	\$ 1,950.00
7	8-inch Gate Valves	4 EA	\$ 1,250.00	\$ 5,000.00
8	Fire Hydrants	4 EA	\$ 3,800.00	\$ 15,200.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	1,410 EA	\$ 2.50	\$ 3,525.00
12	Gravel Backfill	630 TN	\$ 20.00	\$ 12,600.00
13	Foundation Gravel	40 TN	\$ 25.00	\$ 1,000.00
14	Asphalt Concrete Pavement Repair	70 TN	\$ 160.00	\$ 11,200.00
15	Cold Mix Asphalt	70 TN	\$ 75.00	\$ 5,250.00
16	Crushed Surfacing, Top Course	160 TN	\$ 25.00	\$ 4,000.00
17	Surface Restoration	540 SY	\$ 5.50	\$ 2,970.00
Subtotal:.....				\$ 149,195.00
Sales Tax (7.8%):.....				\$ 11,637.21
Subtotal:.....				\$ 160,832.21
Contingency (20%):.....				\$ 32,167.79
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 193,000.00
Engineering and Administrative Costs (10%):.....				\$ 19,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 212,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-12: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 13,000.00	\$ 13,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	1,790 LF	\$ 50.00	\$ 89,500.00
6	Additional Pipe Fittings	800 LB	\$ 3.00	\$ 2,400.00
7	8-inch Gate Valves	4 EA	\$ 1,250.00	\$ 5,000.00
8	Fire Hydrants	4 EA	\$ 3,800.00	\$ 15,200.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	1,800 EA	\$ 2.50	\$ 4,500.00
12	Gravel Backfill	810 TN	\$ 20.00	\$ 16,200.00
13	Foundation Gravel	50 TN	\$ 25.00	\$ 1,250.00
14	Asphalt Concrete Pavement Repair	80 TN	\$ 160.00	\$ 12,800.00
15	Cold Mix Asphalt	80 TN	\$ 75.00	\$ 6,000.00
16	Crushed Surfacing, Top Course	190 TN	\$ 25.00	\$ 4,750.00
17	Surface Restoration	700 SY	\$ 5.50	\$ 3,850.00
Subtotal:.....				\$ 180,950.00
Sales Tax (7.8%).....				\$ 14,114.10
Subtotal:.....				\$ 195,064.10
Contingency (20%).....				\$ 38,935.90
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 234,000.00
Engineering and Administrative Costs (10%):.....				\$ 23,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 257,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-13: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 17,000.00	\$ 17,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	2,470 LF	\$ 50.00	\$ 123,500.00
6	Additional Pipe Fittings	1,100 LB	\$ 3.00	\$ 3,300.00
7	8-inch Gate Valves	6 EA	\$ 1,250.00	\$ 7,500.00
8	Fire Hydrants	6 EA	\$ 3,800.00	\$ 22,800.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	1,120 TN	\$ 20.00	\$ 22,400.00
13	Foundation Gravel	80 TN	\$ 25.00	\$ 2,000.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	310 TN	\$ 25.00	\$ 7,750.00
17	Surface Restoration	1,920 SY	\$ 5.50	\$ 10,560.00
Subtotal:.....				\$ 223,335.00
Sales Tax (7.8%).....				\$ 17,420.13
Subtotal:.....				\$ 240,755.13
Contingency (20%).....				\$ 48,244.87
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 289,000.00
Engineering and Administrative Costs (10%):.....				\$ 29,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 318,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-14: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 15,000.00	\$ 15,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	2,200 LF	\$ 50.00	\$ 110,000.00
6	Additional Pipe Fittings	1,000 LB	\$ 3.00	\$ 3,000.00
7	8-inch Gate Valves	6 EA	\$ 1,250.00	\$ 7,500.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	990 TN	\$ 20.00	\$ 19,800.00
13	Foundation Gravel	70 TN	\$ 25.00	\$ 1,750.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	270 TN	\$ 25.00	\$ 6,750.00
17	Surface Restoration	1,710 SY	\$ 5.50	\$ 9,405.00
Subtotal:.....				\$ 198,730.00
Sales Tax (7.8%).....				\$ 15,500.94
Subtotal:.....				\$ 214,230.94
Contingency (20%):.....				\$ 42,769.06
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 257,000.00
Engineering and Administrative Costs (10%):.....				\$ 26,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 283,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-15: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 11,000.00	\$ 11,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
5	8-inch Water Pipe, Including Fittings	1,600 LF	\$ 50.00	\$ 80,000.00
6	Additional Pipe Fittings	700 LB	\$ 3.00	\$ 2,100.00
7	8-inch Gate Valves	5 EA	\$ 1,250.00	\$ 6,250.00
8	Fire Hydrants	4 EA	\$ 3,800.00	\$ 15,200.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	720 TN	\$ 20.00	\$ 14,400.00
13	Foundation Gravel	50 TN	\$ 25.00	\$ 1,250.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	200 TN	\$ 25.00	\$ 5,000.00
17	Surface Restoration	1,240 SY	\$ 5.50	\$ 6,820.00
Subtotal:.....				\$ 147,545.00
Sales Tax (7.8%).....				\$ 11,508.51
Subtotal:.....				\$ 159,053.51
Contingency (20%).....				\$ 31,946.49
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 191,000.00
Engineering and Administrative Costs (10%):.....				\$ 19,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 210,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-16: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 11,000.00	\$ 11,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
5	8-inch Water Pipe, Including Fittings	1,600 LF	\$ 50.00	\$ 80,000.00
6	Additional Pipe Fittings	700 LB	\$ 3.00	\$ 2,100.00
7	8-inch Gate Valves	4 EA	\$ 1,250.00	\$ 5,000.00
8	Fire Hydrants	4 EA	\$ 3,800.00	\$ 15,200.00
9	Connections to Existing	1 EA	\$ 2,500.00	\$ 2,500.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	720 TN	\$ 20.00	\$ 14,400.00
13	Foundation Gravel	50 TN	\$ 25.00	\$ 1,250.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	200 TN	\$ 25.00	\$ 5,000.00
17	Surface Restoration	1,240 SY	\$ 5.50	\$ 6,820.00
Subtotal:.....				\$ 146,295.00
Sales Tax (7.8%).....				\$ 11,411.01
Subtotal:.....				\$ 157,706.01
Contingency (20%):.....				\$ 31,293.99
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 189,000.00
Engineering and Administrative Costs (10%):.....				\$ 19,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 208,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-17: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 18,000.00	\$ 18,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
5	8-inch Water Pipe, Including Fittings	2,680 LF	\$ 50.00	\$ 134,000.00
6	Additional Pipe Fittings	1,200 LB	\$ 3.00	\$ 3,600.00
7	8-inch Gate Valves	3 EA	\$ 1,250.00	\$ 3,750.00
8	Fire Hydrants	6 EA	\$ 3,800.00	\$ 22,800.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	1,210 TN	\$ 20.00	\$ 24,200.00
13	Foundation Gravel	80 TN	\$ 25.00	\$ 2,000.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	330 TN	\$ 25.00	\$ 8,250.00
17	Surface Restoration	2,080 SY	\$ 5.50	\$ 11,440.00
Subtotal:.....				\$ 238,065.00
Sales Tax (7.8%).....				\$ 18,569.07
Subtotal:.....				\$ 256,634.07
Contingency (20%):.....				\$ 51,365.93
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 308,000.00
Engineering and Administrative Costs (10%):.....				\$ 31,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 339,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-18: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 21,000.00	\$ 21,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 2,000.00	\$ 2,000.00
5	12-inch Water Pipe, Including Fittings	2,560 LF	\$ 65.00	\$ 166,400.00
6	Additional Pipe Fittings	1,300 LB	\$ 3.00	\$ 3,900.00
7	12-inch Gate Valves	3 EA	\$ 2,000.00	\$ 6,000.00
8	Fire Hydrants	6 EA	\$ 3,800.00	\$ 22,800.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	1,350 TN	\$ 20.00	\$ 27,000.00
13	Foundation Gravel	90 TN	\$ 25.00	\$ 2,250.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	350 TN	\$ 25.00	\$ 8,750.00
17	Surface Restoration	2,130 SY	\$ 5.50	\$ 11,715.00
Subtotal:.....				\$ 279,840.00
Sales Tax (7.8%).....				\$ 21,827.52
Subtotal:.....				\$ 301,667.52
Contingency (20%).....				\$ 60,332.48
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 362,000.00
Engineering and Administrative Costs (10%):.....				\$ 36,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 398,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-19: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 7,000.00	\$ 7,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,000.00	\$ 1,000.00
5	8-inch Water Pipe, Including Fittings	1,050 LF	\$ 50.00	\$ 52,500.00
6	Additional Pipe Fittings	450 LB	\$ 3.00	\$ 1,350.00
7	8-inch Gate Valves	2 EA	\$ 1,250.00	\$ 2,500.00
8	Fire Hydrants	3 EA	\$ 3,800.00	\$ 11,400.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	470 TN	\$ 20.00	\$ 9,400.00
13	Foundation Gravel	30 TN	\$ 25.00	\$ 750.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	130 TN	\$ 25.00	\$ 3,250.00
17	Surface Restoration	820 SY	\$ 5.50	\$ 4,510.00
Subtotal:.....				\$ 100,685.00
Sales Tax (7.8%).....				\$ 7,853.43
Subtotal:.....				\$ 108,538.43
Contingency (20%).....				\$ 21,461.57
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 130,000.00
Engineering and Administrative Costs (10%):.....				\$ 13,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 143,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-20: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 14,000.00	\$ 14,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	2,150 LF	\$ 50.00	\$ 107,500.00
6	Additional Pipe Fittings	950 LB	\$ 3.00	\$ 2,850.00
7	8-inch Gate Valves	3 EA	\$ 1,250.00	\$ 3,750.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	970 TN	\$ 20.00	\$ 19,400.00
13	Foundation Gravel	70 TN	\$ 25.00	\$ 1,750.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	270 TN	\$ 25.00	\$ 6,750.00
17	Surface Restoration	1,670 SY	\$ 5.50	\$ 9,185.00
Subtotal:.....				\$ 193,210.00
Sales Tax (7.8%).....				\$ 15,070.38
Subtotal:.....				\$ 208,280.38
Contingency (20%).....				\$ 41,719.62
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 250,000.00
Engineering and Administrative Costs (10%).....				\$ 25,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 275,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT D-21: New Water Main to serve East UGA.**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u> <u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 13,000.00	\$ 13,000.00
2	Trench Excavation Safety Systems	LUMP SUM	\$ 1,000.00	\$ 1,000.00
3	Erosion Control (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
4	Locate Existing Utilities (0.82%)	LUMP SUM	\$ 1,500.00	\$ 1,500.00
5	8-inch Water Pipe, Including Fittings	1,960 LF	\$ 50.00	\$ 98,000.00
6	Additional Pipe Fittings	900 LB	\$ 3.00	\$ 2,700.00
7	8-inch Gate Valves	2 EA	\$ 1,250.00	\$ 2,500.00
8	Fire Hydrants	5 EA	\$ 3,800.00	\$ 19,000.00
9	Connections to Existing	2 EA	\$ 2,500.00	\$ 5,000.00
10	Service Connections	0 EA	\$ 1,300.00	\$ -
11	Saw Cutting	10 EA	\$ 2.50	\$ 25.00
12	Gravel Backfill	890 TN	\$ 20.00	\$ 17,800.00
13	Foundation Gravel	60 TN	\$ 25.00	\$ 1,500.00
14	Asphalt Concrete Pavement Repair	0 TN	\$ 160.00	\$ -
15	Cold Mix Asphalt	0 TN	\$ 75.00	\$ -
16	Crushed Surfacing, Top Course	240 TN	\$ 25.00	\$ 6,000.00
17	Surface Restoration	1,520 SY	\$ 5.50	\$ 8,360.00
Subtotal:.....				\$ 177,885.00
Sales Tax (7.8%):.....				\$ 13,875.03
Subtotal:.....				\$ 191,760.03
Contingency (20%):.....				\$ 38,239.97
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 230,000.00
Engineering and Administrative Costs (10%):.....				\$ 23,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 253,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT S-01: New Well at SR 505 site**

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<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 15,000.00	\$ 15,000.00
2	Drill and test new well	1 LS	\$ 100,000.00	\$ 100,000.00
3	Provide and install well pump	1 LS	\$ 20,000.00	\$ 20,000.00
4	Provide and install well pitless unit	1 LS	\$ 5,000.00	\$ 5,000.00
5	Site excavation and grading	1 LS	\$ 10,000.00	\$ 10,000.00
6	Site Piping	1 LS	\$ 10,000.00	\$ 10,000.00
7	Electrical and Telemetry	1 LS	\$ 40,000.00	\$ 40,000.00
8	Crushed Surfacing	100 TN	\$ 20.00	\$ 2,000.00
Subtotal:.....				\$ 202,000.00
Sales Tax (7.8%).....				\$ 15,756.00
Subtotal:.....				\$ 217,756.00
Contingency (20%).....				\$ 43,244.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 261,000.00
Engineering and Administrative Costs (25%).....				\$ 65,000.00
TOTAL ESTIMATED PROJECT COST:.....				<u>\$ 326,000.00</u>

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT S-02: New Well at East UGA Site**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM		\$ 15,000.00	\$ 15,000.00
2	Drill and test new well	1 LS		\$ 100,000.00	\$ 100,000.00
3	Provide and install well pitless unit	1 LS		\$ 5,000.00	\$ 5,000.00
4	Provide and install well pump	1 LS		\$ 20,000.00	\$ 20,000.00
5	Site excavation and grading	1 LS		\$ 10,000.00	\$ 10,000.00
6	Site Piping	1 LS		\$ 10,000.00	\$ 10,000.00
7	Electrical and Telemetry	1 LS		\$ 40,000.00	\$ 40,000.00
8	Crushed Surfacing	100 TN		\$ 20.00	\$ 2,000.00
Subtotal:.....					\$ 202,000.00
Sales Tax (7.8%).....					\$ 15,756.00
Subtotal:.....					\$ 217,756.00
Contingency (20%):.....					\$ 43,244.00
TOTAL ESTIMATED CONSTRUCTION COST:.....					\$ 261,000.00
Engineering and Administrative Costs (25%):.....					\$ 65,000.00
TOTAL ESTIMATED PROJECT COST:.....					\$ 326,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT R-01: New 300,000-Gallon Reservoir at East UGA Site**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 24,000.00	\$ 24,000.00
2	Site Work	LUMP SUM	\$ 20,000.00	\$ 20,000.00
3	300,000-Gallon Reservoir	LUMP SUM	\$ 250,000.00	\$ 250,000.00
4	Site Piping	LUMP SUM	\$ 20,000.00	\$ 20,000.00
5	Electrical and Telemetry	1 LS	\$ 10,000.00	\$ 10,000.00
6	Crushed Surfacing	150 TN	\$ 20.00	\$ 3,000.00
Subtotal:.....				\$ 327,000.00
Sales Tax (7.8%):.....				\$ 25,506.00
Subtotal:.....				\$ 352,506.00
Contingency (20%):.....				\$ 70,494.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 423,000.00
Engineering and Administrative Costs (25%):.....				\$ 106,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 529,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT R-02: New 300,000-Gallon Reservoir at East UGA Site**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 24,000.00	\$ 24,000.00
2	Site Work	LUMP SUM	\$ 20,000.00	\$ 20,000.00
3	300,000-Gallon Reservoir	LUMP SUM	\$ 250,000.00	\$ 250,000.00
4	Site Piping	LUMP SUM	\$ 20,000.00	\$ 20,000.00
5	Electrical and Telemetry	1 LS	\$ 10,000.00	\$ 10,000.00
6	Crushed Surfacing	150 TN	\$ 20.00	\$ 3,000.00
Subtotal:.....				\$ 327,000.00
Sales Tax (7.8%):.....				\$ 25,506.00
Subtotal:.....				\$ 352,506.00
Contingency (20%):.....				\$ 70,494.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 423,000.00
Engineering and Administrative Costs (25%):.....				\$ 106,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 529,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT P-01: Pumping Station for East UGA Reservoirs**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 29,000.00	\$ 29,000.00
2	Site Work	LUMP SUM	\$ 20,000.00	\$ 20,000.00
3	Booster Pump Building	LUMP SUM	\$ 150,000.00	\$ 150,000.00
4	Package Booster Pump System	LUMP SUM	\$ 100,000.00	\$ 100,000.00
4	Site Piping	LUMP SUM	\$ 30,000.00	\$ 30,000.00
5	Electrical and Telemetry	1 LS	\$ 60,000.00	\$ 60,000.00
6	Crushed Surfacing	150 TN	\$ 20.00	\$ 3,000.00
Subtotal:.....				\$ 392,000.00
Sales Tax (7.8%):.....				\$ 30,576.00
Subtotal:.....				\$ 422,576.00
Contingency (20%):.....				\$ 84,424.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 507,000.00
Engineering and Administrative Costs (25%):.....				\$ 127,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 634,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT PRV-01: Replace Existing PRV Station No. 1 with New 6" Package PRV Station**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 5,000.00	\$ 5,000.00
2	Site Work	LUMP SUM	\$ 10,000.00	\$ 10,000.00
3	Package 6-Inch PRV Station with 2" low flow bypass	LUMP SUM	\$ 35,000.00	\$ 35,000.00
4	Site Piping	LUMP SUM	\$ 10,000.00	\$ 10,000.00
6	Restoration	LUMP SUM	\$ 5,000.00	\$ 5,000.00
Subtotal:.....				\$ 65,000.00
Sales Tax (7.8%).....				\$ 5,070.00
Subtotal:.....				\$ 70,070.00
Contingency (20%).....				\$ 13,930.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 84,000.00
Engineering and Administrative Costs (25%).....				\$ 21,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 105,000.00

**CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT PRV-02: Replace Existing PRV Station No. 2 with New 6" Package PRV Station**

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 5,000.00	\$ 5,000.00
2	Site Work	LUMP SUM	\$ 10,000.00	\$ 10,000.00
3	Package 6-Inch PRV Station with 2" low flow bypass	LUMP SUM	\$ 35,000.00	\$ 35,000.00
4	Site Piping	LUMP SUM	\$ 10,000.00	\$ 10,000.00
6	Restoration	LUMP SUM	\$ 5,000.00	\$ 5,000.00
Subtotal:.....				\$ 65,000.00
Sales Tax (7.8%).....				\$ 5,070.00
Subtotal:.....				\$ 70,070.00
Contingency (20%).....				\$ 13,930.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 84,000.00
Engineering and Administrative Costs (25%).....				\$ 21,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 105,000.00

CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT PRV-03: Replace Existing PRV Station No. 3 with New 4" Package PRV Station

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 4,000.00	\$ 4,000.00
2	Site Work	LUMP SUM	\$ 10,000.00	\$ 10,000.00
3	Package 4-Inch PRV Station with 1-1/2" low flow bypass	LUMP SUM	\$ 30,000.00	\$ 30,000.00
4	Site Piping	LUMP SUM	\$ 10,000.00	\$ 10,000.00
6	Restoration	LUMP SUM	\$ 5,000.00	\$ 5,000.00
Subtotal:.....				\$ 59,000.00
Sales Tax (7.8%).....				<u>\$ 4,602.00</u>
Subtotal:.....				\$ 63,602.00
Contingency (20%).....				<u>\$ 12,398.00</u>
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 76,000.00
Engineering and Administrative Costs (25%).....				<u>\$ 19,000.00</u>
TOTAL ESTIMATED PROJECT COST:.....				<u><u>\$ 95,000.00</u></u>

CITY OF WINLOCK
PRELIMINARY COST ESTIMATE
PROJECT PRV-04: Replace Existing PRV Station No. 4 with New 4" Package PRV Station

<u>NO.</u>	<u>ITEM</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
1	Mobilization/Demobilization (8%)	LUMP SUM	\$ 4,000.00	\$ 4,000.00
2	Site Work	LUMP SUM	\$ 10,000.00	\$ 10,000.00
3	Package 4-Inch PRV Station with 1-1/2" low flow bypass	LUMP SUM	\$ 30,000.00	\$ 30,000.00
4	Site Piping	LUMP SUM	\$ 10,000.00	\$ 10,000.00
6	Restoration	LUMP SUM	\$ 5,000.00	\$ 5,000.00
Subtotal:.....				\$ 59,000.00
Sales Tax (7.8%):.....				\$ 4,602.00
Subtotal:.....				\$ 63,602.00
Contingency (20%):.....				\$ 12,398.00
TOTAL ESTIMATED CONSTRUCTION COST:.....				\$ 76,000.00
Engineering and Administrative Costs (25%):.....				\$ 19,000.00
TOTAL ESTIMATED PROJECT COST:.....				\$ 95,000.00

APPENDIX M

DOH AND LEWIS COUNTY CORRESPONDENCE



October 29, 2019

Mr. Mark Mazeski
Southwest Drinking Water Operations
243 Israel Road SE, First Floor
P.O. Box 47823
Olympia, Washington 98504-7823

SUBJECT: RESPONSE TO DOH WATER SYSTEM PLAN REVIEW
COMMENTS, WSDOH ID NO. 97500C, ODW PROJECT NO. 17-0907
CITY OF WINLOCK, LEWIS COUNTY, WASHINGTON
G&O #15254.00

Dear Mr. Mazeski:

This letter is in response to the email dated September 27, 2018 and several emails between myself and Scott Pollock over the last year regarding the last DOH review comments for the City of Winlock Water System Update submittal received by DOH on July 2, 2018. Where the response to comments has required significant changes (Chapters 2 and 3), we have provided complete new chapters with a new footer date of October 2019. Where minor changes were required to a few pages in Chapter 1, Chapter 4, and Chapter 8, we have provided only those revised new pages with a new footer date of October 2019. We have also provided a revised cover page with the date changed to October 2019.

We are including three sets of revised chapters, revised pages and the additional documents required to address the review comments in the September 27, 2018 email. Please see that both sets of water plans held by your office and the copy of the plan which your office provided to the Department of Ecology are updated with these revised pages. We are forwarding a copy of this letter with appropriate numbers of revised documents to all other plan holders so that all copies of this water plan held by various entities may also be up to date.

Following are our responses to comments. For clarity, we have inserted the numbered comments from the September 27, 2018 water system plan review email in italics, followed by our response to the comments in regular text.

CHAPTER 2 – BASIC PLANNING DATA

6. *Page 2-8, Maximum Day Production. The Maximum Day Demand/Average Day Demand peaking factor of 1.45 is based on source production, and lumps together residential demand, distribution system leakage, and Cardinal Glass demand. Each of these customer classes account for roughly 1/3 of source production. However, each customer*



Mr. Mark Mazeski
October 29, 2019
Page 2

*class demand varies differently from the others. The Equivalent Residential Unit (ERU) should be defined according to data for occupied residential units only, and should exclude leakage. **Please revise demand and related calculations accordingly.***

***Comment:** Demands used for design and planning must be consistent with the requirements of WAC 246-290-221. They must be based upon actual metered water use records, must account for variations in demands, and must correlate to maximum occupancy. The Equivalent residential Unit (ERU) should be defined according to data for occupied residential units only, and should exclude leakage. Please revise demands and related calculations accordingly.*

Calculations were based on metered data, however we see your concern regarding the variation in water use between customer classes, especially Cardinal Glass which has very consistent daily demands and distribution system leakage which is a constant non peaking demand. After sharing a number of scenarios with Scott Pollock we have provided revised Chapters 2 and 3 based on his review of our Revision 1 scenario as agreed in his email to us on October 21, 2019. The hydraulic modeling performed in chapter 3 initially had issues because the PRVs had not been adjusted correctly, and could not be adjusted correctly until the 2019 water system improvements replaced several lines and added two additional PRVs. We believe it would not be productive to model the system with the new peak hour demands until the 2019 improvements have been completed and the new well is on line.

CHAPTER 3 – WATER SYSTEM ANALYSIS

8. *Page 1-3, Page 3-3, Fire Suppressions Standards. **Please include letter from the City and County Fire Marshall establishing the applicable quantity and duration of the required fire flow for the Winlock Water system.***

***Comment:** WAC 246-290-221 specifies that (5) The minimum water demand and duration required for fire flow and/or fire suppression storage shall be determined by the local fire control authority, ~~or chapter 246-293 WAC for systems within the boundaries of a designated critical water supply service area (CWSSA).~~ (Lewis County is not designated as a CWSSA.) Public water systems that are not required to comply with minimum fire flow standards shall coordinate with the local fire control authorities to ensure that any hydrants on the system, if they can possibly be used in the course of fire suppression activities, do not create adverse pressure problems within the water system as a result of fire control actions.*



Mr. Mark Mazeski
October 29, 2019
Page 3

Please see attached letter dated May 14, 2019 from the Lewis County Fire District #15.

10. *Page 3-14, Coliform Bacteria Monitoring. Please update this section, and the Coliform Monitoring Plan with Map and Fact Sheets, found in Appendix E, to be compliant with the Revised Total Coliform Rule (RTCR). See DOH Publication 331-556 for more information on the RTCR.*

Comment: The updated CMP was not received. The updated page 3-16 references the RTCR publications are in Appendix F. However, that is the Hydraulic Modeling information. Perhaps it should be referenced in Appendix E.

The updated CMP has been attached and page 3-16 has been changed to correctly reference Appendix E for this document.

APPENDIX D – CONSTRUCTION STANDARDS

30. *Fire department connections require Reduced Pressure Backflow Assemblies (RPBAs). Please revise the drawing accordingly.*

Comment: Please revise construction standard drawings showing fire department connection details to require Reduced Pressure Backflow Assemblies (RPBAs) unless a cross-connection control specialist (CCS) deems other protection appropriate.

Please refer to the attached email from Scott Pollock dated August 28, 2018 and the email from Lewis County Fire District #15 dated December 14, 2018. When we spoke to Rodney Cecil (City of Winlock's CCS) regarding this matter his opinion was using a DDCV on a fire department connection was acceptable so long as the Fire District could confirm there was no chance of cross contamination from connecting their fire suppression equipment to fire department connections. The highlighted section of the attached December 14, 2018 email from Lewis County Fire District #15 provides additional information addressing this issue and confirms they are taking measures to ensure cross contamination from their equipment does not occur.

MISCELLANEOUS

31. ***Please provide the resolution, motion, or other action by the City Council to approve the WSP.***

This will be provided after DOH has reviewed the revised Chapters 2 and 3 and have accepted the information provided within those chapters.



Mr. Mark Mazeski
October 29, 2019
Page 4

32. ***Please provide the City's notice and the minutes from the meeting with the consumers to present the WSP. See WAC 246-290-100(8).***

This will be provided after DOH has reviewed the revised Chapters 2 and 3 and have accepted the information provided within those chapters.

33. ***Please provide the City's notice of public forum and minutes from the forum as required under the Water Use Efficiency (WUE) Goal Setting. See WAC 246-290-830(4).***

This will be provided after DOH has reviewed the revised Chapters 2 and 3 and have accepted the information provided within those chapters.

- Please provide an updated WFI with the final WSP. The storage capacity listed on the WFI should include the CFG capacity.***

We will work with City staff to provide them the necessary information to accomplish this.

- The County Planner and Health Specialist submitted written comments. The WSP needs to reflect those comments. These changes can be adopted by reference or the text of the WSP can be adjusted as set out in the County's comments.***

These comments have been incorporated and included in the replacement pages for Chapter 1 and Chapter 8.

If you have any questions please do not hesitate to contact me at (360) 292-7481.

Sincerely,

GRAY & OSBORNE, INC.



Jon Hinton, P.E.

JH/sp
Encl.

cc: Ms. Tedi Curry, Clerk/Treasurer, City of Winlock
Mr. Rodney Cecil, City of Winlock
Mr. Scott Pollock, DOH

Jon Hinton

From: Pollock, R. Scott (DOH) [RScott.Pollock@doh.wa.gov]
Sent: Monday, October 21, 2019 9:02 AM
To: Jon Hinton
Cc: mike johnson
Subject: RE: Winlock ERU's

Hi Jon,

I meant to get back to you on Thursday but didn't get the chance. I'm sorry about that.

We discussed your revision 1 dated 10/10/19 as your favored option (ERU ADD = 195 gpd; MDD = 613 MDD). That would be an acceptable approach.

Scott

R. Scott Pollock, P.E.

Regional Engineer
Office of Drinking Water
Washington State Department of Health
scott.pollock@doh.wa.gov
360-236-3018 | www.doh.wa.gov
Gender Pronouns: he/him



From: Jon Hinton [<mailto:jhinton@g-o.com>]
Sent: Thursday, October 10, 2019 10:05 AM
To: Pollock, R. Scott (DOH) <RScott.Pollock@doh.wa.gov>
Cc: mike johnson <mjohnson@g-o.com>
Subject: Winlock ERU's

Scott;

I've attached revision 2 using the more updated information described in the attached ERU recalculation rev 2. Even leaving DSL at the higher 2015 level, the limiting factor of source supply moves from mid 2022 (from rev 1 spreadsheet) to near the end of 2031. With this information I'm hoping we can find a way to approve the existing plan as is and provide an updated plan after the new well is on line and all the galvanized line replacements are completed.

Jon Hinton, P.E.
Gray & Osborne, Inc.
Olympia Office
2102 Carriage Drive SW, Bldg. I
Olympia, WA 98502

Ph(360) 292-7481
Fx(360) 292-7517

Electronic File Transfer-

Note that these electronic files are provided as a courtesy only. Gray & Osborne, Inc. in no way guarantees the accuracy or completeness of the digital data contained within these files. Furthermore, Gray & Osborne, Inc. assumes no liability for any errors or omissions in the digital data herein. Anyone using the information contained herein should consult the approved or certified hard copy drawings or reports for the most current information available.

Jon Hinton

From: Jon Hinton [jhinton@g-o.com]
Sent: Thursday, October 10, 2019 8:33 AM
To: Pollock, Scott (DOH)
Subject: Winlock ERU's
Attachments: ERU recalculation rev 1.doc; ERU-MDD rev 1.xlsx; Table 2-9.pdf

Scott;

I realized that you may not want to subtract "others" ADD from the MDD calculation so I have rerun and attached rev 1 of the documents to that effect. I have also attached Table 2-9 which I neglected to do yesterday. I may run a scenario using the more recent data and a reduced growth rate to see how that comes out as well.

Jon Hinton, P.E.
Gray & Osborne, Inc.
Olympia Office
2102 Carriage Drive SW, Bldg. I
Olympia, WA 98502

Ph(360) 292-7481
Fx(360) 292-7517

Electronic File Transfer-

Note that these electronic files are provided as a courtesy only. Gray & Osborne, Inc. in no way guarantees the accuracy or completeness of the digital data contained within these files. Furthermore, Gray & Osborne, Inc. assumes no liability for any errors or omissions in the digital data herein. Anyone using the information contained herein should consult the approved or certified hard copy drawings or reports for the most current information available.

City of Winlock
Water System plan Update
Recalculation of ERU's Revision 1
10/10/19

The following calculations are based on the information provided on Table 2-9 (copy attached), the max day production of 516,242 gpd from table 2-4 and the growth rate of 8.49% interpolated from the 2010 Lewis County Growth Management Plan as described on page 2-3 of the WSP draft update and required by Lewis County Planner Fred Evander (who no longer works at Lewis County).

2015 Residential ADD = 94,313 gpd; 433 active services = 218 gpd ADD per service and 433 ERU's. The average day water use per active residential connection used the 218 gpd from 2015 and the 171 gpd from 2014 to provide an average value of 195 gpd per ERU as shown in Table 2-6.

Constant use ADD of Cardinal Glass = 116,265 gpd
Constant use ADD of DSL = 103,691 gpd

“Other” ADD (commercial other than Cardinal Glass, Industrial, Apartment Bldgs, Mobile Home Parks, Duplex/4-plex, Schools, MFR Homes, City Parks, Hydrant Rental, Churches, Fire Fighting, Unbilled/Unmetered usage) = 39,767 gpd

Max Day Production (MDP) from Table 2-4 = 516,242, then subtracting ADD of everything except residential and “Other” from MDP = 296,286

Max day to Ave day ratio for residential = $296,286/94,313 = 3.14$ so the MDD per ERU = 195 gpd x 3.14 or 613 gpd

Applying this ratio and the 8.49% growth rate to everything except Cardinal Glass and DSL and using the new MDD per ERU of 613 gpd provides the projections shown on the attached spreadsheet (MDD values are listed in gpd):

Based on the spreadsheet figures the limiting factor of source supply would not be a concern until 1149 ERU's or about 5 months into 2022, at which time the new well will be on line. If we use more the more recent 2016 thru 2018 data the projected needs will move further into the future.

	A	B	C	D	E	F	G	H	I	J	K
1											
2											
3											
4											
5											
6											
7	Year	ERU's Cardinal	MDD Cardinal	ERU's DSL	MDD DSL	ERU's Res	MDD Res	ERU's "other"	MDD "other"	Total ERU's	Total Max Day Demand
8	2016	190	116200	169	103740	433	265429	75	45975	923	531344
9	2017	190	116200	169	103740	470	287964	81	49878	910	557782
10	2018	190	116200	169	103740	510	312412	88	54113	957	586465
11	2019	190	116200	169	103740	553	338936	96	58707	1008	617583
12	2020	190	116200	169	103740	600	367711	104	63691	1063	651343
13	2021	190	116200	169	103740	651	398930	113	69099	1123	687969
14	2022	190	116200	169	103740	706	432799	122	74965	1187	727705
15	2023	190	116200	169	103740	766	469544	133	81330	1258	770814
16	2024	190	116200	169	103740	831	509408	144	88235	1334	817583
17	2025	190	116200	169	103740	902	552657	156	95726	1417	868323
18	2026	190	116200	169	103740	978	599578	169	103853	1507	923371

CITY OF WINLOCK

ERU/MDD RECALCULATION Rev 1

TABLE 2-9

Equivalent Residential Connections for 2015 Water Use

Customer Class	2015 Average Daily Water Use, gallons	2015 Average Number of Active Services	2015 Average Gallons per Service per Day	2015 ERUs
Metered Water Use				
Residential ⁽¹⁾	94,313	433	218	433
Cardinal Glass	116,265	3	38,755	596
Commercial other than Cardinal Glass	10,061	58	173	52
Industrial	10,002	6	1,667	51
Apartment Buildings	3,027	6	504	16
Mobile Home Parks	2,402	2	1,201	12
Duplex – 4-Plex	2,142	17	126	11
Schools	6,302	6	1,050	32
Manufactured Homes	1,478	13	114	8
City Parks	316	7	45	2
Hydrant Rental ⁽²⁾	19	3	6	0
Churches	710	6	118	4
Subtotal, Metered Water Use	247,036	560	441	1,217
Estimated Unmetered Water Use				
Fire Fighting	1,121	0	NA	6
Other Unbilled and Unmetered Usage	2,188	0	NA	11
Subtotal, Unmetered Water Use	3,309	0	NA	17
Total Usage	250,345	560	447	1,234
Estimated Non-Use				
DSL	103,691	0	NA	532
Totals	354,036	560	632	1,766

- (1) Residential services are always one ERU per service, regardless of individual usage rates or changes in usage rate from year to year. The average day residential usage for 2015 was 218 gpd per connection, which is more than the ERU value of 195 gpd per ERU. However, residential services are counted as one ERU each regardless of actual usage rates for any given year.
- (2) The City uses one hydrant meter for metering water service to construction and other various uses. The hydrant meter may be moved to various locations and billed to various contractors at various times.

FUTURE SYSTEM DEMANDS

As shown in Figure 2-1 and Table 2-1, the City of Winlock's population has not increased significantly in the past 14 years. Between 2001 and 2015 the City's population increased by just three, which is an average annual growth rate of 0.02 percent. However, with the inclusion of the large area between the current City

Jon Hinton

From: Mazeski, Mark J (DOH) [Mark.Mazeski@DOH.WA.GOV]
Sent: Thursday, September 27, 2018 2:59 PM
To: rodneycecil991@yahoo.com; winws@toledotel.com; jhinton@g-o.com
Cc: Pollock, Scott (DOH); Read, Cathi (COM)
Subject: Winlock, City of, Owner ID #97500, Lewis County; Water System Plan Update, ODW Project #17-0907

Subject: Winlock, City of, Owner ID #97500, Lewis County; Water System Plan Update, ODW Project #17-0907

Dear Rodney Cecil:

Thank you for submitting the revised Water System Plan (WSP) for the above water system, received by the Office of Drinking Water (ODW) on July 2, 2018. The original WSP was submitted on September 29, 2017 and our first set of comments was issued on December 29, 2017. We have reviewed the re-submittal and have the following comments that need to be addressed before we can approve the WSP. The comments below are numbered the same as our original comments issued on December 29th. If the original comment is not listed below, it was adequately addressed in your re-submittal.

CHAPTER 2 – BASIC PLANNING DATA

6. Page 2-8, Maximum Day Production. The Maximum Day Demand/Average Day Demand peaking factor of 1.45 is based on source production, and lumps together residential demand, distribution system leakage, and Cardinal Glass demand. Each of these customer classes account for roughly 1/3 of source production. However, each customer class demand varies differently from the others. The Equivalent Residential Unit (ERU) should be defined according to data for occupied residential units only, and should exclude leakage. **Please revise demand and related calculations accordingly.**

Comment: Demands used for design and planning must be consistent with the requirements of WAC 246-290-221. They must be based upon actual metered water use records, must account for variations in demands, and must correlate to maximum occupancy. The Equivalent residential Unit (ERU) should be defined according to data for occupied residential units only, and should exclude leakage. Please revise demands and related calculations accordingly.

CHAPTER 3 – WATER SYSTEM ANALYSIS

8. Page 1-3, Page 3-3, Fire Suppressions Standards. **Please include letter from the City and County Fire Marshall establishing the applicable quantity and duration of the required fire flow for the Winlock Water system.**

Comment: **WAC 246-290-221 specifies that** (5) The minimum water demand and duration required for fire flow and/or fire suppression storage shall be determined by the local fire control authority, ~~or chapter 246-293 WAC for systems within the boundaries of a designated critical water supply service area (CWSSA).~~ (Lewis County is not designated as a CWSSA.) Public water systems that are not required to comply with minimum fire flow standards shall coordinate with the local fire control authorities to ensure that any hydrants on the system, if they can possibly be used in the course of fire suppression activities, do not create adverse pressure problems within the water system as a result of fire control actions.

10. Page 3-14, Coliform Bacteria Monitoring. Please update this section, and the Coliform Monitoring Plan with Map and Fact Sheets, found in Appendix E, to be compliant with the Revised Total Coliform Rule (RTCR). See DOH Publication 331-556 for more information on the RTCR.

Comment: The updated CMP was not received. The updated page 3-16 references the RTCR publications are in Appendix F. However, that is the Hydraulic Modeling information. Perhaps it should be referenced in Appendix E.

APPENDIX D – CONSTRUCTION STANDARDS

30. Fire department connections require Reduced Pressure Backflow Assemblies (RPBAs). Please revise the drawing accordingly.

Comment: Please revise construction standard drawings showing fire department connection details to require Reduced Pressure Backflow Assemblies (RPBAs) unless a cross-connection control specialist (CCS) deems other protection appropriate.

MISCELLANEOUS

31. Please provide the resolution, motion, or other action by the City Council to approve the WSP.

32. Please provide the City’s notice and the minutes from the meeting with the consumers to present the WSP. See WAC 246-290-100(8).

33. Please provide the City’s notice of public forum and minutes from the forum as required under the Water Use Efficiency (WUE) Goal Setting. See WAC 246-290-830(4).

Comment: Please provide the above information when it is available.

- Please provide an updated WFI with the final WSP. The storage capacity listed on the WFI should include the CFG capacity.**
- The County Planner and Health Specialist submitted written comments. The WSP needs to reflect those comments. These changes can be adopted by reference or the text of the WSP can be adjusted as set out in the County’s comments.**

CLOSING

We ask that you submit three copies of the revised pages of the WSP. Please respond to all comments in the plan. To expedite the review of the revised WSP, please summarize the response to the comments and where each response is located (for example, page numbers, appendices, and so on).

If you have any questions, please contact Mark Mazeski at (360) 236-3038 or by e-mail at mark.mazeski@doh.wa.gov, or Scott Pollock at (360) 236-3018 or by e-mail at scott.pollock@doh.wa.gov.

Sincerely,

Mark J. Mazeski

Regional Planner, Southwest Region

Office of Drinking Water
Washington State Department of Health
mark.mazeski@doh.wa.gov
360-236-3038 | www.doh.wa.gov
360-236-3029 (fax)





June 29, 2018

Mr. Mark Mazeski
Southwest Drinking Water Operations
243 Israel Road SE, First Floor
P.O. Box 47823
Olympia, Washington 98504-7823

SUBJECT: RESPONSE TO DOH WATER SYSTEM PLAN REVIEW
COMMENTS, WSDOH ID NO. 97500C, ODW PROJECT NO. 17-0907
CITY OF WINLOCK, LEWIS COUNTY, WASHINGTON
G&O #15254.00

Dear Mr. Mazeski:

This letter is in response to the letter dated December 29, 2017, signed jointly by you and Scott Pollock, P.E., requesting response to comments regarding the City of Winlock Water System Plan dated September 2017. Where the response to comments has required replacement of pages, we have provided a revised chapter with a new footer date of June 2018. We are providing three sets of revised chapters, the final wellhead protection plan (Appendix G), and Table of Contents with this letter. Please see that both sets of water plans held by your office and the copy of the plan which your office provided to the Department of Ecology are updated with these revised documents. We are forwarding a copy of this letter with appropriate numbers of revised documents to all other plan holders so that all copies of this water plan held by various entities may also be up to date.

Following are our responses to comments. For clarity, we have inserted the numbered comments from the December 29, 2017 water system plan review letter in italics, followed by our response to the comments in regular text.

CHAPTER 1 – WATER SYSTEM DESCRIPTION

- Page 1-22, Service Area. Effective January 14, 2017, WAC 246-290 was updated. That update eliminated the use of the term "Future Service Area" in counties that are not subject to the Public Water System Coordination Act of 1977, such as Lewis County, and use of the term "Existing Service Area". Use of these terms, which are no longer applicable in Lewis County, can result in confusion. Please remove the terms "Existing Service Area" and "Future Service Area", or variants of*



Mr. Mark Mazeski
June 29, 2018
Page 2

these terms, throughout the WSP, including pages 1-22 and 1-23 and Figures 1-5, 1-6, 1-7, 3-2, 8-1 and 8-2.

We have removed the terms “Existing Service Area” and “Future Service Area” and replaced them with “Retail Service Area” and “Service Area” respectively throughout the plan and on Figures 1-5, 1-6, 1-7, 3-2, 8-1 and 8-2.

2. ***Page 1-23, Service Area Map. Please provide a Service Area Map that shows the City of Winlock’s (the City) Service Area and the City’s Retail Service Area. These may include the same area or the Retail Service Area may be a smaller area than the City’s Service Area. Please address the City’s Duty to provide Service within the Retail Service Area. Please see DOH Publication 331-366 for information on Duty to Provide Service.***

Figure 1-5 has been revised and the “Duty to Provide Service” has been added to the Retail Service Area description.

3. ***Page 1-26, Private or Public Wells. The WSP states; “No new water systems or private wells will be allowed within the City limits, unless approved by the City Council.” This is a good idea because allowing individual wells or public water systems within the City’s service area deprives the City of needed revenue to support the public’s investment in infrastructure, potentially opens up the City’s aquifer to contamination, amongst other things. However, in order for the City to put this into effect, the City will need to adopt an ordinance. Enclosed is an Ordinance adopted by Pacific County that could be used as a model.***

A draft ordinance has been sent to the City Attorney.

4. ***Page 1-27, Individual Booster Pumps. Please review WAC 246-290-230. This WAC provision requires that booster pumps be under the management and control of the purveyor whenever the pressure is less than 30 pounds per square inch (psi) at peak hourly demand (PHD) or under fire flow conditions, then less than 20 psi at maximum day demand (MDD) plus the required fire flow. Please revise.***

We have made these revisions to page 1-27.



CHAPTER 2 – BASIC PLANNING DATA

5. *Generally applicable to Chapter 2 as a whole. Variability and trending for distribution leakage should be quantified, taking into account leak repair, to the extent possible. Demand variability should be similarly evaluated. These should be compared to source production, which at 22 hours per day, can only be increased by two hours when needed. Because water loss is strongly related to galvanized pipe failure by corrosion, please consider accelerating incidence and severity of leaks per unit length as pipes age.*

Recent design work has determined testing at three of the seven PRV stations is needed. This testing will confirm the locations and positions (open or closed) of normally closed bypass valves and the rebuild/replacement of the PRV's at one or more of these three facilities that may be required. The current operating pressure in the Downtown Reduced Pressure Zone (Zone 4) is between 85 and 105 psi. Since this area contains most of the oldest water mains in Town it is our opinion leakage rates will significantly decrease when the pressure in this area is reduced back down to 60 psi and the currently planned improvements to replace significant portions of the older galvanized lines is completed later this year. We believe any additional evaluation should be delayed until these items of work are completed.

6. *Page 2-8, Maximum Day Production. The Maximum Day Demand/Average Day Demand peaking factor of 1.45 is based on source production, and lumps together residential demand, distribution system leakage, and Cardinal Glass demand. Each of these customer classes account for roughly 1/3 of source production. However, each customer class demand varies differently from the others. The Equivalent Residential Unit (ERU) should be defined according to data for occupied residential units only, and should exclude leakage. **Please revise demand and related calculations accordingly.***

We agree that the 1.45 peaking factor is a lower value than typically seen but when it is applied to the larger demands of all customer classes, including leakage, we believe it still provides a conservative projection. As leakage rates are reduced (due to galvanized water main replacement, pressure zone adjustments and leak detection and repair) the maximum day to average day ratio is likely to get larger. However, as leakage rates are reduced the future MDD's are likely to be lower than projected in this water plan update. Therefore we believe the projections in this plan are still conservative. We believe a re-evaluation during the next WSP update



Mr. Mark Mazeski
June 29, 2018
Page 4

(after the work discussed in item 5 above is completed and more consumption data is known) would provide much more accurate projections than making assumptions about leakage and maximum day demands of the various customer classes based on the currently available data.

7. *Page 2-14, Equivalent Residential Units. The second paragraphs states; “the total of unmetered water use represents 17 ERUs”. Please provide the basis for this estimate and list the types of uses and duration of use that were unmetered.*

We added the following statement after the first sentence in the second paragraph on page 2-14: “Unmetered water use data was provided by the City and is shown at the bottom of Table 2-5. This use was typically attributed to water main flushing, fire fighting and construction activities.

CHAPTER 3 – WATER SYSTEM ANALYSIS

8. *Page 3-3, Fire Suppressions Standards. Please include letter from the City and County Fire Marshall establishing the applicable quantity and duration of the required fire flow for the Winlock Water system.*

As stated in the last sentence of the last paragraph on page 3-3, the City’s design and construction standards (Appendix D) indicate minimum fire flow standards in Section 4.02 (C). These standards were adopted by the City and the County Fire Marshall has no authority to dictate what the City’s fire suppression standards are (there is no City Fire Marshall). The City could try to get a letter from the Fire District chief but they could request more stringent standards since any required improvements would not come out of their budget.

9. *Page 3-7, Source Water Quality. The WSP states; “The wells are all chlorinated to protect the distribution system from contamination. Chlorine has been used only on an emergency basis during coliform contamination events.” Please clarify these seemingly incongruous statements.*

That section has been revised by deleting the second sentence.



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10. *Page 3-14, Coliform Bacteria Monitoring. Please update this section, and the Coliform Monitoring Plan with Map and Fact Sheets, found in Appendix E, to be compliant with the Revised Total Coliform Rule (RTCR). See DOH Publication 331-556 for more information on the RTCR.*

The Coliform Bacteria Monitoring section and the Coliform Monitoring Plan have been revised and enclosed.

11. *Page 3-19, Sources. The WSP states that S-07 is inactive, but the WFI in Appendix A has it listed as Emergency. Please clarify and update WFI, if appropriate.*

The 2nd page of the WFI has been marked up and enclosed showing S-07 is inactive. Page 3-19 has been revised to add more detail on the differences between the Robinson & Noble Report recommended pumping rates and the actual pumping rates.

12. *Page 3-18, System Facilities Analysis.*

- *Water Rights, Table 3-12. According to the WSP, Winlock only has sufficient annual water rights (Qa), to make it through 2023.*
- *Source Capacity Analysis, Table 3-13. According to the WSP, Winlock only has sufficient source capacity to make it through 2022.*
- *Storage Capacity Analysis, Table 3-15. According to the WSP, Winlock only has sufficient annual storage to make it through 2023.*

Based on the above limiting factors, the Office of Drinking Water can approve the WSP as written. However, the City will be set at a specified connection limit as demonstrated by the WSP. (The current WFI is incorrect and will be updated shortly. The City's number of approved connections was changed from Unspecified to 645 on November 21, 2008 by project 07-1005.) Alternatively, the City can utilize a lower growth rate. This WSP is based upon an annual growth rate of 8.49%, which far exceeds the historic growth rate of 0.02% for the period from 2001 to 2015. The Washington State Office of Financial Management (OFM), as part of the Growth Management Act (GMA) is required to project future population for each county. OFM prepares new County population projections every 5 years with the last published projection dated 2012. Selected copies are enclosed. The 2017 report is due out any day. Based upon OFMs medium projection, close to the County's current growth



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since 2012 (see April 1, 2017 projections), Lewis County should expect to grow at a rate of about 0.6% per year until 2035. At this lower growth rate, or the City's historic growth rate, it is possible that the City would be able to make it through the entire 10-year planning period without hitting any limiting factors. The City is allowed to choose whichever growth rate it determines best fits. Although, it is important that the WSP articulates the source of that growth rate.

We agree a growth rate of 8.49% for the City of Winlock may be unlikely but the Water System Plan must be found consistent with the Lewis County GMA plan for the County to sign the required consistency statement. As described on page 2-3 of the Winlock WSP update a 2030 population of 4,550 for the City of Winlock (as stated in Appendix A of the Lewis County GMA plan under Table 2 on page 32) was used in conjunction with the City's current population to determine the growth rate needed to be consistent with the 2030 projection in the County's GMA document.

If the City does grow at the 8.49% rate due to I-5 development, the plan alerts them to the resources they will need. If the growth rate is significantly lower those resources won't be needed until a later date. The upcoming water system work will also increase source capacity and significantly reduce leakage thereby helping to extend the time period before additional resources are needed.

13. *Page 3-23, Storage. Please describe storage volume accounting for shared use of the Cardinal Glass reservoir in more detail. Please describe the storage available to Winlock when Cardinal Glass has depleted its available volume(s), the circumstances under which this might occur, and any agreements affecting stored water availability to Winlock.*

We have added additional detail on the revised page 3-23.

14. *Page 3-29, Table 3-16. The numbers under the heading of Above Base and Above Sea Level appear to be reversed. Please verify*

This has been corrected on the revised page 3-29.



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CHAPTER 4 – WATER USE EFFICIENCY PROGRAM

15. *Page 4-1, Objective. The Water Use Efficiency (WUE) program appears to be written as a 6-year program. However, the WSP appears to be written as a 10-year plan. Please revise so that the WSP planning period coincides with the WUE program.*

Since the goals have already been set based on a 6 year period we will add the following to each stated goal: “and maintain that level for the remainder of the ten year planning period and beyond.” Pages have been revised to reflect the 10 year planning period.

16. *Page 4-5, Current WUE Goals. The City lists its WUE goal as “Reduce DSL to 10 percent or less of total water production by the end of 2022.” However, the WSP does not appear to pave a path to meet this goal. The 10-year capital improvement plan (CIP) only includes replacing 55% of the galvanized pipe, determined to be the greatest source of leaks, and \$10,000 per year on leak detection and repair. . Please explain whether this is sufficient to reduce the current distribution system leakage (DSL) of 26% down to 10%.*

The City is hoping the replacement of galvanized lines and the modifications to pressure zones will provide a significant reduction in leakage. They were able to reduce leakage from 49% in 2012 to 29% in 2015 by leak detection and making minor repairs. Additional repairs made between 2016 and 2017 have reduced DSL to 24%. Repairing/replacing PRV’s to bring operating pressures back down to design conditions and installing \$650,000 of pipe replacement this year should get them much closer to 10%.

17. *Page 4-8, Water Loss Control Action Plan. The WSP does a good job of listing several components of a Water Loss Control Action Plan (WLCAP). However, these components are spread throughout the WSP. All of the WLCAP components must be in one document and demonstrate the following:*
- a. *The control methods necessary to achieve compliance with the 10% DSL standard;*
 - b. *An implementation schedule to achieve the 10% DSL standard;*
 - c. *A budget demonstrating that the control methods will be funded;*



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- d. Any technical or economic concerns which may affect the City's ability to comply with 10% DSL, including past efforts and investments;*
- e. Assess data accuracy and data collection; and*
- f. Implement additional actions to reduce leakage within 6-months.*

This document may be located within the Appendices of the WSP.

The City is hoping to avoid this expense until the next WSP Update. As stated in many of the previous items, significant reductions in water loss are expected when the pressure zones are modified and a majority of the older galvanized pipe is replaced this year. Once this work is completed leakage will be reassessed to determine what additional actions, if any, will be required and the Water Loss Control Action Plan shown in Chapter 8 will need to be revised. The City has been successful in performing leak detection and repair in the past and is committed to continue that work as needed to get leakage reduced to 10% or lower. The City respectfully requests the Water Loss Control Action Plan currently shown in Chapter 8 be accepted until the next WSP Update, or at least until the water system improvements are completed later this year.

18. *Page 4-10, Water Use Data Reporting. The WSP states that the annual consumer confidence reports (CCR) include information regarding the WUE Reports. The CCRs found in Appendix H do not include DSL data. Please takes steps to annually send this information to the consumers.*

Page 4-10 has been revised to state: "Future reports will include DSL data along with the other data required in Table 4-1."

CHAPTER 5 - SOURCE PROTECTION PROGRAM

19. *Page 5-1, The wellhead protection program is located in Appendix G. The following comments relate to Appendix G.*
- a. The Wellhead Protection Plan (WPP) is labeled "Draft". Please include the final, approved version.*
 - b. Page 9 of the Wellhead Protection Plan, Section 5, list the three types of letters that are to be mailed out. Please verify that these letters were sent to the appropriate parties as listed in the WPP.*



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- c. *Appendix B of the Wellhead Protection Plan should include the delineation maps for the Time of Travel Site Maps. These were not provided. **Please include the time of travel maps for each source.***
- d. *Emergency Response and Contingency Plans are a required element, but not provided. **Please provide these items.***
- e. *The Sanitary Survey of 2015 reports that water level in Well S01 periodically dropped below the level of the pump that year. **Please evaluate the susceptibility to drought.***

The revised Wellhead Protection Plan (WHPP) is enclosed. Please replace the draft plan in Appendix G with this revised plan. The letters of Notification have been mailed out by the City. Mapping has been included in the new WHPP. The WHPP now contains Appendix F: Emergency Response Plan. City staff monitors well S01 during dry conditions and the pumping rate is reduced when necessary.

- 20. *Page 6-5, Pressure Reducing Stations. Chapter 6 should provide operationally necessary information that is not otherwise available to operational staff, such as guidance on pressure reducing valve settings when records are no longer available.*

We have revised the second paragraph of the Pressure Reducing Stations section on page 6-5 to reference Table 1-7 for PRV station pressure settings. Work being performed in conjunction with the 2018 Water System Improvement Project will develop additional PRV information that will be incorporated into reference maps for each PRV station.

- 21. *Page 6-6, Water Quality Monitoring. Copies of recent CCRs are located in Appendix H. All of the reports, regardless of year, state 2013 at the top of each page of the report. **Please take steps to include the applicable date in the future.***

The City will correct this error on future CCRs.

- 22. *Page 6-11, Emergency Response Program. Emergency response planning should include actions necessary to deal with droughts and water shortage. **Please include a water shortage response plan as set out in WAC 246-290-420.***



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The final WHPP (Appendix G) has been included in this submittal. The Emergency Response Plan in this document contains section 10 K which outlines the emergency response required for “Reduction or loss of water in the watershed”.

23. *Page 6-14, Power Failure. Please verify that Puget Sound Energy provides electricity to the area, and revise as necessary.*

Page 6-14 has been revised to reflect Lewis County PUD providing electricity to the area.

CHAPTER 7 – DISTRIBUTION FACILITIES DESIGN AND CONSTRUCTION STANDARDS

24. *Page 7-6, System Pressures. At all times, even under peak domestic use, minimum distribution pressures are to be at 30 psi, except during fire demand, at which time they may drop to a minimum of 20 psi. Please revise.*

System Pressures for domestic use (page 7-6) has been revised to reflect a minimum of 30 psi at peak hour demand.

CHAPTER 8 – IMPROVEMENT PROGRAM

25. *Page 8-9, Water Loss Control Action Plan. As previously stated under Chapter 4, above, the WLCAP needs to be a stand-alone document. In addition, that plan must include a schedule and budget to show how the City will achieve 10% DSL. Funding the entire \$1,353,000 galvanized pipe replacement project could go a long way toward achieving 10% DSL. Expecting grants or loans to pay for water main replacement is not likely. The City was very fortunate to secure one grant for funding part of this program. With the current Federal budget issues, it is unlikely that additional Federal dollars will be available for additional grants. Loans to fund water main projects are equally rare. The City should consider increasing rates in order to completely fund this project at this time.*

As stated in item 17 above, the City is hoping to avoid the expense of preparing a Water Loss Control Action Plan that will likely be outdated as soon as the water system improvements are completed later this year. The City respectfully requests the Water Loss Control Action Plan currently shown in Chapter 8 be accepted until the next WSP Update, or at least until the water system improvements are completed this year. As stated in many of the previous items, significant reductions in water loss are



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expected when the pressure zones are modified and a majority of the older galvanized pipe is replaced this year. Once this work is completed leakage can be reassessed to determine what additional actions, if any, will be required. The City has been successful in performing leak detection and repair in the past and is committed to continue that work as needed to get leakage reduced to 10% or lower.

26. *Page 8-10, Annual Leak Detection and Repair. This section states that the City will postpone leak detection and repair for a year after 55% of the galvanized pipe replacement project is completed. Then only fund the program with \$10,000 per year. This may be too little too late, as it is likely that once half of the galvanized pipes are fixed, the remaining sections will leak even more due to increased pressure and recent ground disturbing activity in the area. The City should move this program up a year and consider increasing the leak detection and repair budget to anticipate the increased leaks.*

The City believes much of the current leakage is due to PRV adjustments and possible PRV failures. All of the older water mains serving the downtown businesses and older residential neighborhoods are currently experiencing pressures 40 to 50 psi higher than normal operating/design pressures. The City has been rebuilding the main pressure reducing valves and expects to have that work completed this year, allowing distribution facilities to return to normal operating pressures. This PRV work, recent leak detection/repair and the galvanized pipe replacement is all that the City can afford at this time. The City hopes the currently proposed rate increases can be accepted until new water loss data is available in 2019.

27. *Page 8-16, Water Use Efficiency Measures. As previously stated, the CCR sections related to the distribution of conservation guidelines and publications could not be found. **Please provide examples.***

The City has mailed out the following DOH publications in the past: 331-120-1, 2, 3 and 4. They have also sent out a pamphlet from AWWA discussing household hazards/contaminants. The City will be providing additional information in the water billing mail out (DOH 331-450) along with a link to the City's website where information will be posted regarding the City's water use efficiency goals.



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CHAPTER 9 – FINANCIAL PROGRAM

28. *Page 9-4, Historic Revenues and Expenditures. The WSP states; “Over the 8 year data period, 96.3 percent of the water portion of the 401 Fund Total Revenues were from Water Sales. The percent of total credits from Water Sales varied from a high of 98.6 percent in 2011 to a low of 72.4 percent in 2012 due to a transfer in of \$103,000 from Timber Fund in 2012.” It is extremely difficult to follow the Financial Program Chapter, as there are numerous Funds, transfers in and out of funds, and no explanation as to what they are, where this money comes from, and how it relates to the water department budget. **Please explain the 401 Fund, the 408 Fund, the WS Cap Imp 410 fund, the Timber Fund, the Miller Trust Fund Donation, the 407 Fund, the 407 Bond Redemption Fund, the 408 Bond Reserve Fund, the 410 Water-Sewer Capital Improvement Fund and the 416 Water Project Fund, including how money gets into these funds, where that money comes from, and how and why that money is transferred into or out of the water fund.***

The Historic Revenues and Expenditures section of Chapter 9 has been rewritten to provide additional information regarding the City’s fund transfers.

29. *Page 9-16, Table 9-11, Cash Flow and Financing of Selected Capital Improvements. This table is difficult to follow and needs to integrate the information in Table 9-10. **For each year, please include the beginning balance, net revenue with and without rate increase, ending balance, and correct the row titled Beginning Balance from Table 9-10 (this probably should be labeled something else).** A balanced operational budget should show a beginning balance, all revenue (including explanation of source of the revenue Fund), all expenses (including capital improvements), and an ending balance for each of the next 10 years.*

Table 9-11 has been corrected to clarify these concerns and enclosed.

APPENDIX D – CONSTRUCTION STANDARDS

30. *Fire department connections require Reduced Pressure Backflow Assemblies (RPBAs). **Please revise the drawing accordingly.***

Drawing will be revised.



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MISCELLANEOUS

31. ***Please provide the resolution, motion, or other action by the City Council to approve the WSP.***

WSP will be discussed and adopted after the City receives confirmation that DOH is satisfied with the responses listed above.

32. ***Please provide the City's notice and the minutes from the meeting with the consumers to present the WSP. See WAC 246-290-100(8).***

The City will hold a public hearing on the WSP after the City receives confirmation that DOH is satisfied with the responses listed above.

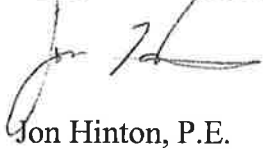
33. ***Please provide the City's notice of public forum and minutes from the forum as required under the Water Use Efficiency Goal Setting. See WAC 246-290-830(4).***

The City will hold a public forum on Water Use Efficiency Goal Setting during the same meeting the WSP is adopted. This meeting will be scheduled and advertized after the City receives confirmation that DOH is satisfied with the responses listed above.

If you have any questions please do not hesitate to contact either me or Jon Hinton, P.E. at the telephone number below.

Sincerely,

GRAY & OSBORNE, INC.



Jon Hinton, P.E.

JH/sp
Encl.

cc: Ms. Tedi Curry, Clerk/Treasurer, City of Winlock
Mr. Rodney Cecil, City of Winlock



Community Development

2025 NE Kresky Avenue
Chehalis WA 98532

October 24, 2017

Karl Johnson, P.E
Gray and Osborne, Inc.
2102 Carriage Drive SW, Bldg. I
Olympia, WA 98052

RE: CITY OF WINLOCK WATER SYSTEM PLAN

Dear Mr. Johnson,

Thank you for submitting the Winlock Water System Plan (dated September 2017) for our review. Based on our examination, we find that the plan is consistent with the items specified in the Local Government Consistency Statement (see attached). However, we do recommend that a couple of minor changes are made to the document.

- On Page 1-25, please revise the statement at the bottom of the page to state that property outside of the UGA can be served if the service is consistent with the Lewis County Countywide Planning Policies and the rural zoning of the area.
- On Page 8-16, please change the watershed from the Chehalis to the Cowlitz River basin.
- Please address the comments of Sue Kennedy, the Senior Environmental Health Specialist at Lewis County, in her memorandum dated October 23, 2017.

We hope that the comments and suggestions assist in your continued preparation of the plan.

Please let me know if you have any questions about this letter or anything else. You can contact me by phone at (360) 740-1389 or by email at fred.evander@lewiscountywa.gov.

Sincerely,

Fred Evander
Long Range Planner



MEMO

October 23, 2017

To: Fred Evander

From: Sue Kennedy RS *SKC*

RE: Winlock WSP
September 2017

I have reviewed the above subject project and have the following comments and recommendations:

Pg 1-7 thru 1-9 Adjacent Purveyors

Several of the listed water systems within or adjacent to the Winlock Service Area have been misidentified or the information is inaccurate:

- 06046H Sward – 278 is now a Group A community water supply serving 10 residential connections
- 06519X Woodbridge Gardens is a Group B water supply that is now a fireworks manufacturer with two connections and renamed Jake's Fireworks, 06519X.
- 07846L Whispering Firs 2 is misidentified. It is a Group B water supply that is Whispering Firs 3, 07846L.
- 08272L Platt 2 511 is a Group B water system that has been inactivated.
- 06226, Skye Village Shell is a Group ATNC water supply located within the area on the westerly of Exit 63.



Local Government Consistency Review Checklist

Water System Name: City of Winlock PWS ID: 97500C

Planning/Engineering Document Title: Water System Plan Plan Date: September 2017

Local Government with Jurisdiction: Lewis County

WAC 246-290-108 Consistency with local plans and regulations:

Consistency with local plans and regulations applies to planning and engineering documents under WAC 246-290-106, 246-290-107, and 246-290-110(4)(b) (ii).

1) Municipal water suppliers must include a consistency review and supporting documentation in its planning or engineering document describing how it has addressed consistency with **local plans and regulations**. This review must include specific elements of local plans and regulations, as they reasonably relate to water service as determined by Department of Health (DOH). Complete the table below and see instructions on back.

Local Government Consistency Statement	Page(s) in Planning Document	Yes – No – Not Applicable
a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the applicable service area.	Pgs 1-22 - 25, Figs 1-5, 1-6, 1-7	Yes
b) The <u>six-year growth projection</u> used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology.	Pgs 2-1 - 5 Pgs 2-15 - 18	Yes
c) Applies to <u>cities and towns that provide water service</u> : All water service area policies of the city or town are consistent with the <u>utility service extension ordinances</u> of the city or town.	Pgs 1-25 - 28	Yes
d) <u>Service area policies</u> for new service connections are consistent with the adopted local plans and adopted development regulations of all jurisdictions with authority over the service area [City(ies), County(ies)].	Pgs 1-25 - 28	Yes
e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable; Coordinated Water System plans, Regional Wastewater plans, Reclaimed Water plans, Groundwater Area Management plans, and Capital Facilities Element of Comprehensive plans.	N/A	N/A

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Fred Evans
Signature

10.24.2017
Date

Fred Evans, Planner Lewis County
Printed Name, Title, & Jurisdiction



September 25, 2017

Mr. Mark Mazeski
Southwest Drinking Water Operations
243 Israel Road SE, First Floor
P.O. Box 47823
Olympia, Washington 98504-7823

SUBJECT: WATER SYSTEM PLAN SUBMITTED FOR DOH REVIEW AND
APPROVAL, WSDOH ID NO. 97500C
CITY OF WINLOCK, LEWIS COUNTY, WASHINGTON
G&O #15254.00

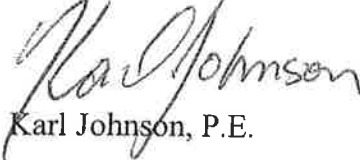
Dear Mr. Mazeski:

Submitted herewith are three copies of the City of Winlock Water System Plan for your review and approval. We are submitting a copy of this plan to Lewis County Planning together with a completed Local Government Consistency Review Checklist for their consideration and signature. When we receive the signed consistency checklist we will forward it to you for your records.

If you have any questions please do not hesitate to contact either me or Jon Hinton, P.E. at the telephone number below.

Sincerely,

GRAY & OSBORNE, INC.



Karl Johnson, P.E.

KJ/sp
Encl.

cc: Ms. Tedi Curry, Clerk/Treasurer, City of Winlock



Water System Plan Submittal Form

This form must be completed and submitted along with the Water System Plan (WSP). It will expedite review and approval of your WSP. **All water systems should contact their regional planner before developing any planning document for submittal.**

<u>Winlock City</u> 1. Water System Name	<u>97500C</u> PWS ID# or Owner ID#	<u>City of Winlock</u> Water Systems Owner's Name
<u>Rodney Cecil</u> Contact Name for Utility	<u>(360) 520-5589</u> Phone Number	<u>Public Works Superintendent</u> Title
<u>323 NE First Street, PO Box 777</u> Contact Address	<u>Winlock</u> City	<u>WA 98596</u> State Zip
<u>Karl Johnson, P.E., Jon Hinton, P.E.</u> 2. Project Engineer	<u>(360) 292-7481</u> Phone Number	<u>Project Engineer</u> Title
<u>Gray & Osborne, Inc</u> 2102 Carriage Drive SW, Building I Project Engineer Address	<u>Olympia</u> City	<u>WA 98502</u> State Zip
<u>Tedi Curry</u> 3. Billing Contact Name (required if not the same as #1)	<u>(360) 785-3811</u> Billing Phone Number	<u>(360) 983-8910</u> Billing Fax Number
<u>323 NE First Street, PO Box 777</u> Billing Address	<u>Winlock</u> City	<u>WA 98596</u> State Zip

4. How many services are presently connected to your system? 433
5. Is your system expanding (seeking to extend service area or increase number of approved connections)? Yes No
6. If the number of services is expected to increase, how many *new* connections are proposed in the next six years? 378
7. If your system is private-for-profit, is it regulated by the State Utilities and Transportation Commission? Yes No
8. Is the system located in a Critical Water Supply Service Area (i.e., have a Coordinated Water System Plan)? Yes No
9. Is your system a customer of a wholesale water system? Yes No
10. Will your system be pursuing additional water rights from the Department of Ecology in the next 20 years? Yes No
11. Is your system proposing a new intertie? Yes No
12. Do you have projects currently under review by us? Yes No
13. Are you requesting distribution main project report and construction document submittal exception and if so, does the WSP contain standard construction specifications for distribution mains? Yes No
14. The water system is responsible for sending a copy of the WSP to adjacent utilities for review or a letter notifying them that a copy of the WSP is available for their review and where the review copy is located. Has this been completed? Yes No
15. The purveyor is responsible for sending a copy of the WSP to all local governments within the service area (county and city planning departments, etc.). Has this been completed? Yes No
16. Are you proposing a change in the place of use of your water right? Yes No

If answer to questions 7,8, 11, 14 and/or 15 is "yes," list who you sent the WSP to: Copy sent to Lewis County Planning. There are no adjacent utilities.

Is this plan: an Initial Submittal a Revised Submittal

Please enclose the following number of copies of the WSP:
3 copies for Northwest and Southwest Regional Offices OR 2 copies for Eastern Regional Office (We will send one copy to Ecology)
1 additional copy if you answered "yes" to question 7. 3 Total copies attached

Please return completed form to the Office of Drinking Water regional office checked below.

- Northwest Drinking Water Operations
Department of Health
20425 72nd Avenue South, Suite 310
Kent, WA 98032-2358
253-395-6750
- Southwest Drinking Water Operations
Department of Health
PO Box 47823
Olympia, WA 98504-7823
360-236-3030
- Eastern Drinking Water Operations
Department of Health
16201 East Indiana Avenue Suite 1500
Spokane Valley, WA 99216
509-329-2100

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).