

## Keller Associates in behalf of Town of Colton

The Town of Colton received FSY2024 funding for improvements to their WWTP under funding agreement number WQC-2024-ToColt-00058. The Town of Colton council would like to request additional funds through Ecology's SCPPL program to address additional improvements at the WWTP including the addition of a shot fence to keep lead out of the lagoon cells which will enhance water quality, as well as to replace approximately 2,400 feet of sewer main and manholes upstream of the WWTP that are susceptible to high amounts of infiltration and inflow. The Town Council has requested that their consultant engineer, Keller Associates, submit comments on See the attached memo including a summary of these proposed improvements including project descriptions and cost estimates. Let me know if any additional information is needed.



**TO:** Town of Colton  
**FROM:** Keller Associates, Inc. – Stillman Norton, PE and Jake Gordon, EI  
**DATE:** March 4, 2024  
**SUBJECT:** Small Community Project Priority List (SCPPL) Funding Request

3/04/2024

## 1. PURPOSE

The Town of Colton has requested that Keller Associates provide a sufficient information to submit a comment to Ecology’s SFY25 Water Quality Funding Offer List and Intended Use Plan in order to request additional funding for needed sewer main improvements upstream of their wastewater treatment plant (WWTP) through Ecology’s Small Community Project Priority List (SCPPL) program. The following provides a project description including background on previous planning efforts, and estimated costs to design and construct these improvements. Additionally, the Town would like to request additional funding to include the construction of a new shot fence along the southwestern boundaries of their lagoon facility to help prevent additional lead from entering the lagoon cells from the adjacent gun club facility.

## 2. PROJECT DESCRIPTIONS

### 2.1. SHOT FENCE IMPROVEMENTS

The Town of Colton’s WWTP is located adjacent to the Colton Gun Club which regularly hosts shotgun shooting events. Due to their proximity, lead shot accumulates in both cells 1 and 2. Testing was completed in these cells as recently as 2021 which yielded a lead result of 118,000 mg/kg and 168 mg/kg respectively. In addition to planned improvements at the WWTP that are currently under design, the addition of approximately 600-feet of shot shield fence would help further prevent any future accumulation of lead material in the lagoon cells. Since these improvements were not previously planned for, additional funding will be needed in order to include this in the overall WWTP improvements project.

### 2.2. SEWER MAIN IMPROVEMENTS

The Town of Colton started a series of planning efforts on their sewer utility beginning in 1999 with subsequent amendments completed in 2004, 2013, 2016, and 2023. Analysis and discussion of the condition of the collection system first appeared in the 1999 where it identified that the sewer lines directly upstream of the WWTP are susceptible to extreme infiltration and inflow from the WWTP to a manhole just south of Vulcan Street (see project vicinity map). Amendments in 2004, 2013, and 2016 further reinforced that these sewer lines were still in need of replacement and that infiltration and inflow were still a major concern. The 2023 amendment solely focused on planning and evaluation at the WWTP. Additionally, the 2016 Amendment included additional I/I analysis efforts including CCTV inspection of various pipelines north of the State Highway. These inspections reinforced that several pipelines, including the roughly 2,400 feet of concrete asbestos pipe directly upstream from the WWTP, had significant I/I issues. These issues and the condition of the pipe will warrant replacement of this 2,400 feet of pipe as well as the replacement of the 10 manholes contained in this run. The Town of Colton wishes to replace this run of 8” asbestos concrete pipe with new 8” PVC sewer pipe. Additionally, the Town would also like to replace each of the 10 manholes included in this run.



### 3. PROJECT LOCATION AND VICINITY MAP

#### 3.1. SHOT FENCE IMPROVEMENTS

The shot fence improvements described above would be located in the approximate location shown in Figure 3.1 below in red.

FIGURE 3.1 - SHOT FENCE IMPROVEMENTS LOCATION



#### 3.2. SEWER MAIN IMPROVEMENTS

The sewer main improvements described above are located in the areas highlighted in pink in Figure 3.2 below.

FIGURE 3.2 - SEWER MAIN IMPROVEMENTS LOCATION





#### 4. COST ESTIMATE

To complete the shot fence and sewer main improvements described above, the Town of Colton will need an additional \$610,000 for the shot fence improvements and \$1,205,000 for the sewer main improvements, totaling \$1,815,000 of funding through the SCPPL program. These costs assume that construction will occur at the same time as the wastewater treatment plant improvements, which are currently scheduled to begin in April of 2025. See Tables 4.1 and 4.2 below for additional breakdown of the requested costs.

TABLE 4.1 - SHOT FENCE IMPROVEMENTS ESTIMATED COSTS

Item	Quantity	Unit	Unit Price	Estimated Cost
Shot Fence	600	LF	\$550	\$ 330,000
Mobilization	1	LS	10%	\$ 33,000
<b>Improvements Subtotal</b>				<b>\$ 363,000</b>
General Conditions	1	LS	10%	\$ 37,000
Contingencies	1	LS	15%	\$ 60,000
Contractor OH&P	1	LS	15%	\$ 69,000
<b>Total Construction Cost</b>				<b>\$ 529,000</b>
Task #1 - Grant and Loan Administration			0.30%	\$ 1,600
Task #2 - Design Engineering			9.00%	\$ 47,700
Task #3 - Bidding Support Services			0.60%	\$ 3,200
Task #4.1 - Construction Engineering			5.00%	\$ 26,500
Task #4.2 - Full Time Inspection (Assume occurs during same time as WWTP)				\$ -
Task #5 - Construction				\$ 529,000
Task #6 - Legal			0.36%	\$ 2,000
<b>Total Project Cost</b>				<b>\$ 610,000</b>



TABLE 4.2 - SEWER MAIN IMPROVEMENTS ESTIMATED COSTS

Item	Quantity	Unit	Unit Price	Estimated Cost
Clearing and Grubbing	1	LS	\$25,000	\$ 25,000
Removal of Obstructions	1	LS	\$6,000	\$ 6,000
Removal of Asphalt	15	SY	\$60	\$ 900
Removal of Existing Sewer Pipe	2400	LF	\$20	\$ 48,000
Removal of Existing Manhole	10	EA	\$500	\$ 5,000
Excavation	1	LS	\$60,000	\$ 60,000
Dewatering / Bypass Pumping	20	DAY	\$1,000	\$ 20,000
Misc. Surface Restoration, Natural Ground	1300	SY	\$30	\$ 39,000
Type C Surface Restoration, Gravel	350	SY	\$25	\$ 8,800
Type P Surface Restoration, Asphalt	15	SY	\$240	\$ 3,600
Gravity Sewer Pipe - Size 8"	2400	LF	\$120	\$ 288,000
Sanitary Sewer Manhole - Size 48"	10	EA	\$7,000	\$ 70,000
Connection to Existing Manhole	2	EA	\$7,000	\$ 14,000
Sediment Control	1	LS	\$15,000	\$ 15,000
Construction Traffic Control	1	LS	\$5,000	\$ 5,000
Mobilization	1	LS	10%	\$ 61,000
<b>Improvements Subtotal</b>				<b>\$ 670,000</b>
General Conditions	1	LS	10%	\$ 67,000
Contingencies	1	LS	15%	\$ 111,000
Contractor OH&P	1	LS	15%	\$ 128,000
<b>Total Construction Cost</b>				<b>\$ 976,000</b>
Task #1 - Grant and Loan Administration			0.30%	\$ 3,000
Task #2 - Design Engineering			15.00%	\$ 147,000
Task #3 - Bidding Support Services			0.60%	\$ 6,000
Task #4.1 - Construction Engineering			7.00%	\$ 69,000
Task #4.2 - Full Time Inspection (Assume occurs during same time as WWTP)				\$ -
Task #5 - Construction				\$ 976,000
Task #6 - Legal			0.36%	\$ 4,000
<b>Total Project Cost</b>				<b>\$ 1,205,000</b>