

MILFORD CITY PROPOSED WASTEWATER IMPROVEMENT PROJECT

OCTOBER 17, 2023



PURPOSE OF HEARING

- **THE PURPOSE OF THE MEETING IS TO RECEIVE INPUT FROM THE PUBLIC IN RESPECT TO MILFORD CITY'S PROPOSAL TO APPLY FOR LOAN FUNDING AND GRANT FUNDING FROM THE UTAH PERMANENT COMMUNITY IMPACT FUND BOARD (CIB) FOR A MILFORD CITY WASTEWATER IMPROVEMENT PROJECT. THIS PROPOSED PROJECT WILL RESULT IN AN INCREASE IN THE SEWER RATES.**

PROJECT HISTORY

- **IN 2022-2023, MILFORD CITY HAD A WASTEWATER CAPITAL FACILITY PLAN CONDUCTED ON OUR WASTEWATER SYSTEM TO DEFINE OUR CURRENT WASTEWATER DEMANDS AND INFRASTRUCTURE NEEDS. THE PLAN GAVE THE FOLLOWING SUMMARY OF THE MILFORD CITY WASTEWATER SYSTEM.**

SYSTEM SUMMARY

- Sewer Collection System: Approx. 74,700 total feet of pipe; 10,185 feet of "Problem Pipe"
 - Problem pipe includes:
 - Interceptor sewer with flat slope and many sags
 - Clay pipe susceptible to failure
 - Root intrusion
 - Cracked/broken pipe
 - Obstructions
- Lift Stations – all sewage is pumped to treatment lagoons
 - Little League Lift Station – collects wastewater west of the tracks
 - Industrial Park Lift Station – collects wastewater in the industrial park
- Sewer Lagoons
 - Four cells (ponds) total. Only one is in use.
 - Currently at approx. 50% capacity. Estimate 60% capacity in 20 years.
 - Headworks structure is aging and deteriorating. No metering equipment.
 - Cell No. 2 does not hold water

PROPOSED PROJECT

- **REPLACE LITTLE LEAGUE LIFT STATION (TOWN LIFT STATION)**
- **UPGRADE PUMP CONTROLS AND REPLACE THE ROOF ON THE INDUSTRIAL PARK LIFT STATION**
- **REHABILITATE CLAY LINER OF SEWER LAGOON CELL 2**
- **CONSTRUCT NEW HEADWORKS AND METERING STATION AT THE LAGOON INLET**
- **REPLACE AND ADJUST THE SLOPE OF INTERCEPTOR SEWER**
- **REPLACE APPROXIMATELY 3 BLOCKS OF CLAY PIPE**

INFRASTRUCTURE AGE/PROBLEMS

- **LITTLE LEAGUE LIFT STATION WAS BUILT IN 1975. THE BUILDING IS SETTLING AND THE PUMP AND PART ARE OBSOLETE DUE TO THE AGE OF THE LIFT STATION. PUMPS HAVE TO BE CUSTOM-MADE. WHEN REPLACING THE PUMP AND WORKING ON THE LIFT STATION THE CITY CREW HAS TO ENTER A CONFINED SPACE.**
- **SEWER LAGOON: WE HAVE 4 CELLS AND ITS SUFFICIENT FOR OUR 20-YEAR GROWTH PROJECTION. CELL 1 IS THE ONLY ONE BEING UTILIZED AND CELL NO. 2 DOES NOT HOLD WATER. CELL 2 NEEDS TO BE REHABBED SO WE CAN LEVEL OUT AND UTILIZE CELL 1 AND CELL 2 EQUALLY.**
- **BACK UP GENERATORS ARE IN VERY POOR CONDITION AND PARTS ARE OBSOLETE**

CITY CREW STATEMENT-WHY IS THIS PROJECT NEEDED

- MILFORD CITY HAS NOT DONE A SEWER PROJECT SINCE 1995 AND OUR MAIN TOWN LIFT STATION HAS NOT BEEN IMPROVED SINCE 1989. THE 1989 IMPROVEMENTS ONLY IMPROVED THE DRY WELL, BUT THE BUILDING AND THE WET WELL ARE THE ORIGINAL FROM 1975. THE BUILDING HAS BEEN SETTLING FOR THE LAST 15 YEARS AND WE HAVE CUT ABOUT 4" INCHES OFF THE DOOR AND IT STILL DOESN'T OPEN ALL THE WAY. THE BACKUP GENERATOR IS FROM THE 1970S, THE RELAYS AND PARTS ARE OBSOLETE. THE RADIATOR LEAKS ANTIFREEZE. ALSO, WHEN THE GENERATOR IS IN USE, IT OVERHEATS AND SHUTS OFF AND THEN THE CREW IS REQUIRED TO FILL IT WITH WATER TO COOL DOWN AND GET IT BACK OPERATING BEFORE THE TOWN BACKS UP.
- THE CURRENT DESIGN OF THE TOWN LIFT STATION IS NOT THE BEST OF WORKING CONDITIONS. WHEN WORKING IN THE DRY WELL, THE SPACE IS ONLY BIG ENOUGH FOR 1 PERSON, CREATING A HAZARDOUS ENVIRONMENT FOR THE EMPLOYEES.
- NEITHER LIFT STATION HAS A WORKING FLOW METER. STATE LAW REQUIRES FLOW TO BE MEASURED AND REPORTED. AT THIS TIME, WE ESTIMATE BY THE PUMP TIME AND GALLONS PER MINUTE AND WHAT THE PUMP IS RATED FOR; HOWEVER, THIS IS NOT VERY ACCURATE.
- THE INDUSTRIAL PARK LIFT STATION ROOF LEAKS AND WE HAVE EXPERIENCED ISSUES WITH THE CONTROLS AND HAVE HAD TO RE-ROUTE NEW FLOATS TO ALLOW IT TO CONTINUE TO OPERATE.
- THE LAGOON HEAD WORKS/COLLECTOR BOX WAS INSTALLED IN THE 1970S. THE CONCRETE BOX IS SHOWING EXTREME DETERIORATION AND IS CRUMBLING. CELL #2 IS NOT HOLDING WATER AND IT IS BEST PRACTICE TO UTILIZE TWO CELLS EQUALLY TO WORK PROPERLY.

CITY CREW- BENEFITS OF THE PROJECT

- **WITH THIS PROJECT WE WILL INSTALL A MECHANICAL SCREEN AT THE LIFT STATIONS THAT WILL CATCH DEBRIS, RAGS, WIPES, AND OTHER ITEMS THAT PLUG UP THE PUMPS AND FILL UP THE LAGOONS.**
- **AN ALARM SYSTEM WILL BE INSTALLED WITH OUR CURRENT SCADA SYSTEM TO ALERT THE CREW WHEN ISSUES ARISE. CURRENTLY, THE CREW DOESN'T KNOW OF THE ISSUE UNTIL THEY ARRIVE AT THE LIFT STATIONS.**
 - **IF THE LIFT STATION FAILS, THE TOWN RUNS THE RISK OF BACKING UP THE ENTIRE SYSTEM AND FILLING BASEMENTS WITH SEWAGE. FINES FROM THE STATE WOULD BE EXTREMELY COSTLY.**
- **BOTH LIFT STATIONS WILL BE UPDATED AND ALLOW FOR MAINTENANCE TO BE PERFORMED MORE EASILY AND IN A SAFER MANNER.**

PROJECT SCOPE OF WORK

The city plans to complete this project in 2 phases as described in the project description

MILFORD CITY WASTEWATER IMPROVEMENTS PROJECT

Milford City is located in Beaver County, approximately 30 miles northwest of Beaver City along Highway 21. The Milford City sewer collection system provides sewer service to approximately 1,507 residents, in addition to several commercial, industrial, and institutional facilities.

A Wastewater Capital Facilities Plan was completed in January 2023. Portions of the system that were known to have problems were cleaned and video inspected. System deficiencies were inventoried, evaluated, and prioritized based on severity. Common pipe problems that were identified during the video inspection include cracks, obstructions, sags, pipe intrusions, roots and inadequate slopes.

The wastewater lagoon system is comprised of a primary cell and three secondary cells. Cell 2 of the lagoon system is used infrequently and is growing significant vegetation, which typically results in a compromised liner. The existing lagoon headworks box is also old and deteriorating, and the lagoons do not have any metering capabilities currently.

Differential settling of the Lift Station 1 building has caused cracking of the building walls and foundation, and the lift station pumps operate well below the design points for the lift station. Lift Station 2 has faulty controls/instrumentation, and the roof needs replacement.

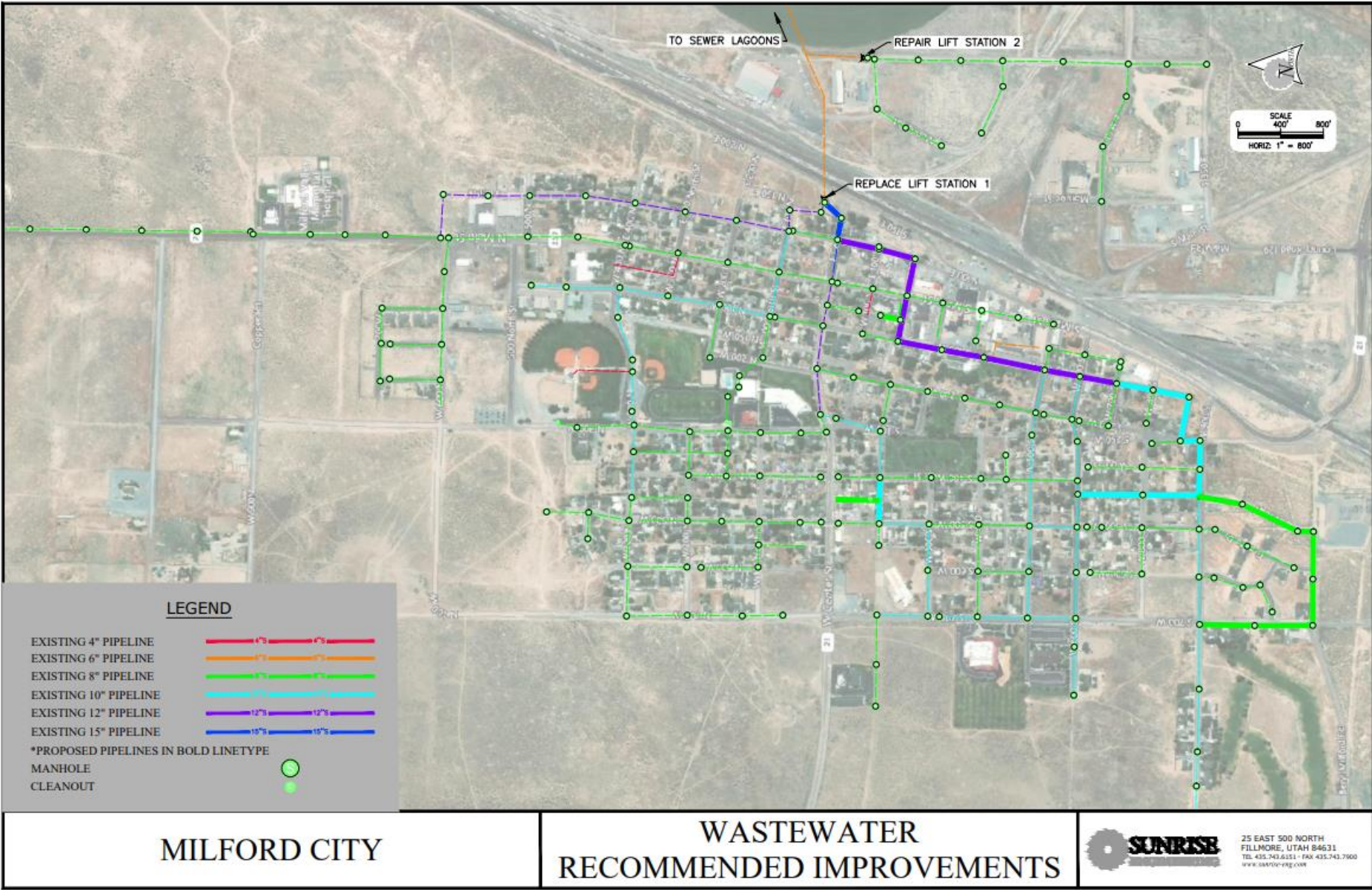
The proposed system improvements include the following items:

1. Replace Lift Station 1
2. Rehabilitate the clay liner in lagoon Cell 2
3. Construct a new headworks and metering station at the lagoon inlet
4. Upgrade controls/instrumentation at Lift Station 2 and replace the roof
5. Replace approximately 8,000 feet of failing 8", 10", 12" and 15" interceptor piping and associated manholes and service laterals.

The total project estimate is \$6,560,500. Milford City is aware that CIB funds are limited, and that there are many projects that need the available funding. In consideration of the limited funds, Milford City proposes to phase the project construction, and to request funding for only the first phase of the project at this time. Phase 1 of the project will include Items 1-4 listed above. The total cost estimate for Phase 1 is \$2,161,500. Milford City will contribute \$189,500 in applicant cash to cover preconstruction costs (engineering design & permitting). Milford City is requesting the balance of \$1,972,000 from CIB, which covers the construction and construction engineering costs.

If the board finds this approach acceptable, Milford City would plan to return to the board at a future date to request assistance with funding for Phase 2 of the project, which will include Item 5 listed above.

MILFORD CITY
INTERCEPTOR LINE
MAP-PHASE 2



PROJECT COST —PHASE 1

LIFT STATIONS LAGOON IMPROVEMENTS

SUNRISE ENGINEERING, INC. 25 East 500 North, Fillmore, Utah 84631 Tel: (435) 743-6151 Fax: (435) 743-7900 Engineer's Opinion of Probable Cost Project: Milford City Wastewater Improvements Owner: Milford City Date: Sep-23 Est. By: JH 					
Milford City Wastewater Improvements					
PHASE 1					
No.	Item Description	Quantity	Unit	Unit Price \$	Amount \$
1	MOBILIZATION (7%)	1	LS	\$ 125,000.00	\$ 125,000.00
NEW LIFT STATION 1					
2	LIFT STATION EARTHWORK	1	LS	\$ 40,000.00	\$ 40,000.00
3	LIFT STATION WETWELL STRUCTURE	1	LS	\$ 500,000.00	\$ 500,000.00
4	LIFT STATION PUMP SYSTEM AND CONTROL PANEL	1	LS	\$ 100,000.00	\$ 100,000.00
5	LIFT STATION BUILDING	1	LS	\$ 280,000.00	\$ 280,000.00
6	LIFT STATION EMERGENCY GENERATOR AND SWITCH	1	LS	\$ 100,000.00	\$ 100,000.00
7	LIFT STATION ELECTRICAL	1	LS	\$ 100,000.00	\$ 100,000.00
8	LIFT STATION GRAVITY PIPING	1	LS	\$ 40,000.00	\$ 40,000.00
LIFT STATION IMPROVEMENTS SUBTOTAL					\$ 960,000.00
LIFT STATION 2 IMPROVEMENTS					
9	CONTROL UPDATES	1	LS	\$ 8,000.00	\$ 8,000.00
10	REPAIR COATING ON PIPE AND APPURTENANCES	1	LS	\$ 20,000.00	\$ 20,000.00
11	FALL PROTECTION, METAL GRATES	1	LS	\$ 8,000.00	\$ 8,000.00
12	REPLACE ROOF	1	LS	\$ 50,000.00	\$ 50,000.00
LIFT STATION IMPROVEMENTS SUBTOTAL					\$ 86,000.00
LAGOON IMPROVEMENTS					
13	REMEDIATE CLAY LINER (CELL 2)	1	LS	\$ 150,000.00	\$ 150,000.00
14	BYPASS PUMPING	1	LS	\$ 20,000.00	\$ 20,000.00
15	REPLACE INLET	1	LS	\$ 2,000.00	\$ 2,000.00
16	NEW HEADWORKS METERING STATION	1	LS	\$ 150,000.00	\$ 150,000.00
LAGOON IMPROVEMENTS SUBTOTAL					\$ 322,000.00
PHASE 1 CONSTRUCTION SUBTOTAL					\$ 1,493,000.00
17	PHASE 1 CONTINGENCY		20%		\$ 298,600.00
PHASE 1 TOTAL CONSTRUCTION					\$ 1,791,600.00
INCIDENTALS & PROFESSIONAL SERVICES					
Pre-Construction Engineering					
18	PRELIMINARY ENGINEERING/PLANNING	1	Est.	\$ 15,000.00	\$ 15,000
19	ENGINEERING DESIGN		5.8%	(of total project)	\$ 126,000
Special Engineering Services					
20	DESIGN SURVEY	1	LS	\$ 6,500.00	\$ 6,500
21	GEOTECHNICAL INVESTIGATION	1	LS	\$ 8,000.00	\$ 8,000
Construction Engineering Services					
22	BID PHASE SERVICES	1	LS	\$ 14,000.00	\$ 14,000
23	CONSTRUCTION PHASE SERVICES	1	Hourly	\$ 180,400.00	\$ 180,400
Legal					
24	LEGAL/BONDING	1	Est.	\$ 20,000.00	\$ 20,000
PHASE 1 INCIDENTALS & PROFESSIONAL SERVICES SUBTOTAL					\$ 369,900.00
PHASE 1 TOTAL COST ESTIMATE					\$ 2,161,500.00

PROJECT COST- PHASE 2

AND TOTAL PROJECT COSTS

<p style="text-align: center;">SUNRISE ENGINEERING, INC. 25 East 500 North, Fillmore, Utah 84631 Tel: (435) 743-6151 Fax: (435) 743-7900</p> <p style="text-align: center;">Engineer's Opinion of Probable Cost</p> <p>Project: Milford City Wastewater Improvements</p> <p>Owner: Milford City</p> <p style="text-align: right;">Date: Sep-23 Est. By: JH</p> <p style="text-align: right;"> SUNRISE ENGINEERING</p>					
Milford City Wastewater Improvements					
PHASE 2					
No.	Item Description	Quantity	Unit	Unit Price \$	Amount \$
25	MOBILIZATION (7%)	1	LS	\$ 266,000.00	\$ 266,000.00
26	TRAFFIC CONTROL	1	LS	\$ 25,000.00	\$ 25,000.00
27	SUBSURFACE INVESTIGATION	50	HR	\$ 250.00	\$ 12,500.00
COLLECTION SYSTEM IMPROVEMENTS - CRITICAL PIPE					
28	8" (ASTM 3034) PVC SEWER PIPE & FITTINGS	2,400	LN FT	\$ 79.00	\$ 189,600.00
29	10" (ASTM 3034) PVC SEWER PIPE & FITTINGS	2,560	LN FT	\$ 92.00	\$ 235,520.00
30	12" (ASTM 3034) PVC SEWER PIPE & FITTINGS	2,720	LN FT	\$ 110.00	\$ 299,200.00
31	15" (ASTM 3034) PVC SEWER PIPE & FITTINGS	320	LN FT	\$ 130.00	\$ 41,600.00
32	4" SDR 35 PVC SERVICE LATERAL	2,550	LN FT	\$ 63.00	\$ 160,650.00
33	IMPORTED PIPE BEDDING	10,550	LN FT	\$ 11.00	\$ 116,050.00
34	BORE AND JACKING 20" DIA X 0.3125" STEEL CASING PIPE UNDER UDOT HIGHWAY	100	LN FT	\$ 1,400.00	\$ 140,000.00
35	BORE AND JACKING 24" DIA X 0.3125" STEEL CASING PIPE UNDER UDOT HIGHWAY	100	LN FT	\$ 1,500.00	\$ 150,000.00
36	UNTREATED BASE COURSE	1,600	CY	\$ 57.00	\$ 91,200.00
37	IMPORTED TRENCH OR STRUCTURAL BACKFILL	3,000	CY	\$ 32.00	\$ 96,000.00
38	IMPORTED GRANULAR BORROW (UDOT)	50	CY	\$ 40.00	\$ 2,000.00
39	FLOWABLE FILL	20	CY	\$ 275.00	\$ 5,500.00
40	PAVEMENT SAW CUTTING	21,200	LN FT	\$ 4.00	\$ 84,800.00
41	3" HMA TRENCH PATCH	9,400	SY	\$ 66.00	\$ 620,400.00
42	REPLACE CURB AND GUTTER	400	LF	\$ 72.00	\$ 28,800.00
43	REMOVE & REPLACE SIDEWALK	200	SY	\$ 125.00	\$ 25,000.00
44	SERVICE LATERAL RECONNECT	85	EACH	\$ 1,000.00	\$ 85,000.00
45	CLEANOUTS	85	EACH	\$ 690.00	\$ 58,650.00
46	REMOVE AND REPLACE 48 INCH MANHOLE	31	EACH	\$ 9,000.00	\$ 279,000.00
47	MATERIALS SAMPLING AND TESTING	1	LS	\$ 30,000.00	\$ 30,000.00
48	SEWER BYPASS PUMPING	1	LS	\$ 130,000.00	\$ 130,000.00
REPLACE CRITICAL PIPE SUBTOTAL					\$ 2,868,970.00
PHASE 2 CONSTRUCTION SUBTOTAL					\$ 3,172,470.00
49	PHASE 2 CONTINGENCY		20%		\$ 634,530.00
PHASE 2 TOTAL CONSTRUCTION					\$ 3,807,000.00
INCIDENTALS & PROFESSIONAL SERVICES					
Pre-Construction Engineering					
50	PRELIMINARY ENGINEERING/PLANNING	1	Est.	\$ 15,000.00	\$ 15,000
51	ENGINEERING DESIGN		5.0%	(of total project)	\$ 246,000
Special Engineering Services					
52	DESIGN SURVEY	1	LS	\$ 15,000.00	\$ 15,000
53	EASEMENT PREPERATION AND TRACT MAP	1	Est.	\$ 6,000.00	\$ 6,000
54	UDOT COORDINATION	1	LS	\$ 5,000.00	\$ 5,000
Construction Engineering Services					
55	BID PHASE SERVICES	1	LS	\$ 15,000.00	\$ 15,000
56	CONSTRUCTION PHASE SERVICES	1	Hourly	\$ 240,000.00	\$ 240,000
57	CONSTRUCTION STAKING	1	Est.	\$ 20,000.00	\$ 20,000
58	POST CONSTRUCTION MAPPING UPDATES	1	Est.	\$ 10,000.00	\$ 10,000
Legal					
59	LEGAL/BONDING	1	Est.	\$ 20,000.00	\$ 20,000
PHASE 2 INCIDENTALS & PROFESSIONAL SERVICES SUBTOTAL					\$ 592,000.00
PHASE 2 TOTAL COST ESTIMATE					\$4,399,000
TOTAL PROJECT CONSTRUCTION (PHASE 1 & 2)					\$5,598,600
TOTAL PROJECT INCIDENTALS & PROFESSIONAL SERVICES (PHASE 1 & 2)					\$961,900
TOTAL PROJECT COST ESTIMATE					\$6,560,500

FUNDING SOURCE: UTAH PERMANENT COMMUNITY IMPACT FUND BOARD (CIB)

- **PHASE 1: LOAN: \$986,000**
 - **30 YEAR LOAN**
 - **INTEREST RATE 1.0%**
- **GRANT: \$986,000**

**Phase 2 funding will be considered at a later date.
Another public hearing will be held for phase 2.**

WILL SEWER RATES INCREASE????

- **YES, MILFORD CITY WILL BE REQUIRED TO INCREASE OUR SEWER RATES TO COVER THE COST OF THE ANNUAL LOAN PAYMENT.**
- **MILFORD CITY HAS NOT HAD A SEWER RATE INCREASE SINCE 2008.**

MILFORD CITY RATE INCREASE FOR PROJECT

- **THE AVERAGE RESIDENTIAL BILL WOULD BE INCREASED FROM \$36.00 TO A MONTHLY RATE BETWEEN \$47.00-\$50.00 TO COVER THE DEBT PAYMENT AND RISING OPERATING AND MAINTENANCE COSTS.**
- **DUE TO OUR CURRENT SITUATION NATIONALLY WITH INCREASED PRICING, WE WILL BE DOING THE INCREASE IN STEPS TO LIGHTEN THE BURDEN TO OUR RESIDENTS. THE TOTAL INCREASE WOULD HAPPEN OVER THE NEXT 8 MONTHS.**

INCREASE PLAN

- **CURRENT RATE \$36.00 FOR SEWER**
- **NOVEMBER 2023-COUNCIL ADOPT RESOLUTION WITH RATE INCREASE PLAN**
- **DECEMBER 2023 BILLING \$5.00 INCREASE — SEWER RATE \$41.00**
- **MARCH 2024 BILLING \$5.00 INCREASE—SEWER RATE \$46.00**
- **JUNE 2024 BILLING \$4.00 INCREASE –SEWER RATE \$50.00**

PUBLIC COMMENT:

- **PLEASE EXPRESS YOUR CONCERNS AND OPINION**
- **MILFORD CITY COUNCIL WANTS TO HEAR FROM YOU**
- **PLEASE APPROACH THE MIC AND STATE YOUR NAME BEFORE SPEAKING ON PUBLIC RECORD.**

CONTACT INFORMATION

Should you have further questions following the meeting please feel free to contact any member of our legislative body.

- **MAYOR NOLAN DAVIS** **NDAVISFIREDIST2@HOTMAIL.COM**

COUNCIL MEMBERS

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