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MEMORANDUM

820-008

TO: File

FROM: ^{SMN} Stephen M. Nielsen, Dexter Wilson Engineering, Inc.

DATE: March 25, 2015

SUBJECT: Salt Creek Interceptor Analysis

Background

The Otay Ranch Sewer Master Plan identified the Salt Creek Interceptor as the vehicle to provide sewer service to the portions of the Otay Ranch located in the County of San Diego regardless of jurisdiction. The Salt Creek Interceptor was constructed in sections with the majority of the pipeline completed approximately eight years ago. The interceptor was constructed to provide sewer conveyance from the south and east portions of the City of Chula Vista as well as other surrounding areas. The interceptor starts as a 15-inch line in Hunte Parkway within the Rolling Hills Ranch project. From there, the interceptor increases in size as it heads south along Salt Creek. The interceptor then turns westerly and follows the Otay River to a point of connection with the City of San Diego Metro Sewer System. The interceptor is 42-inches in diameter where it connects to the Metro System.

Sizing studies for the Salt Creek Interceptor include the Salt Creek Basin Gravity Sewer Analysis (Wilson Engineering, November 1994) and the Salt Creek Gravity Sewer

Interceptor Final Flow Analysis Report (Dudek and Associates, January 2001). These studies projected future flows from the land use planning data for the southern and eastern Otay Ranch areas and included flows from 5,322 units within Villages 13, 14 and 15 and Planning Areas 16 and 19 in the County of San Diego. The Dudek and Associates study included recommendations for upsizing the downstream reaches of the Salt Creek Interceptor in anticipation of potential future land use changes within the study area that would allow for additional development densities while still accommodating flows from Villages 13 and 14 and Planning Areas 16 and 19 in the County. The design and construction of the Salt Creek Interceptor incorporated the recommended upsizing from the Dudek and Associates study. The design and construction of the Salt Creek Interceptor has been funded through a fee program since 1994 (Ordinance No. 2617) that assumed the units within Otay Ranch Villages 13, 14 and 15 and Planning Areas 16 and 19 would be served by this line.

The most recent evaluation of the Salt Creek Interceptor was prepared as part of the 2014 City of Chula Vista Wastewater Collection System Master Plan (IEC, May 2014). This study included an updated hydraulic model of the system and incorporated revised wastewater generation factors and assumptions for infiltration and inflow into the system. However, in the 2014 Master Plan the City of Chula Vista removed the Otay Ranch Villages 13 and 14 and Planning Areas 16 and 19 County of San Diego properties from the Salt Creek Interceptor flow projections.

Purpose

The owners of Villages 13 and 14 and Planning Areas 16 and 19 in the County objected to the City's elimination of these properties from the 2014 Master Plan. In light of their objections, the purpose of this analysis is to include Otay Ranch County of San Diego development flows in the Salt Creek Interceptor hydraulic model to evaluate the potential impact on the system. More specifically, sewer flows from the proposed Otay Ranch Resort (Village 13) and the Proctor Valley Project (Village 14 and Planning Areas 16 and 19) were added back into the flow analysis as they had always been included previously.

Planning Criteria and Projected Development

Planning criteria for this analysis is based on City of Chula Vista Wastewater generation criteria and hydraulic modeling assumptions from the 2014 Master Plan. The Chula Vista sewer duty factors are summarized in Attachment 1 to this memorandum. These factors were applied to existing and proposed development within the basin.

Although the Resort and Proctor Valley Projects are proposed to be developed in the County of San Diego, sewer flows from these properties were estimated using City of Chula Vista criteria as requested in previous comments by Chula Vista staff. A summary of land uses and projected flows from these properties are also provided as part of Attachment 1 to this memorandum.

Hydraulic Modeling

To evaluate the Salt Creek Interceptor, we obtained the hydraulic modeling data from the City of Chula Vista's consultant, Infrastructure Engineering Corporation. The model provided was that used for the 2014 Master Plan and included some subsequent changes from previous hydraulic modeling efforts. The hydraulic model utilizes infoSWMM Software to simulate system operating conditions under various flow scenarios. Included in the assumptions is an allowance for infiltration and inflow that is equivalent to 45% of average dry weather flow.

The hydraulic model was analyzed by Atkins in consultation with Dexter Wilson Engineering. The results of the analysis are provided as Attachment 2 to this memorandum and a brief summary is provided below.

Scenario T1 – No County Flows. Under this scenario, the system was evaluated under year 2050 peak wet weather flow conditions with no flows from the Otay Ranch County of San Diego properties. The results of the analysis indicate that the maximum depth-to-diameter (d/D) ratio in the Salt Creek Interceptor during these conditions is 0.685 in a section of 24-inch pipe. This d/D ratio is acceptable under the recommendations of the City

of Chula Vista 2014 Master Plan, which recommends that sewers greater than 12-inch in diameter should not be replaced unless the d/D ratio exceed 0.85.

Scenario T2 – County Flows Added. This scenario is the same as Scenario T1 but includes the additional flows from the Resort and Proctor Valley Projects in the County. The analysis still evaluates year 2050 peak wet weather flows. The results of this analysis show an increased depth of flow in the interceptor as expected, but the conclusions are virtually the same as the T1 Scenario – i.e. the additional flows from the Resort and Proctor Valley Projects result in a d/D ratio that is acceptable under the recommendations of the City of Chula Vista 2014 Master Plan (a maximum d/D ratio of 0.846 in an existing section of 24-inch pipe, which is less than .85).

The T2 Scenario does identify two stretches of pipe where a few segments of pipe could theoretically exceed a d/D ratio of 0.75. Hydraulic profiles for these two pipe sections are provided as part of Attachment 2. While this d/D ratio is acceptable, the 2014 Master Plan does require that if, in the future, actual flow monitoring indicates that the d/D ratio exceeds 0.75, then a design should be prepared for a section of sewer replacement; however, replacement would only be required if flows exceeded 0.85.

Conclusions

- (1) The City of Chula Vista 2014 Master Plan recommends that sewers greater than 12-inch in diameter should not be replaced unless the d/D ratio exceed 0.85. In applying this criteria, there are no sections of the Salt Creek Interceptor that will require replacement under year 2050 peak wet weather flow conditions even with flows from the Resort and Proctor Valley Projects in the County.
- (2) It is appropriate to service the Resort and Proctor Valley Projects in the County through the Salt Creek Interceptor given that (1) no sections of the Salt Creek Interceptor will require replacement per Conclusion #1 above; (2) the original Otay Ranch Master Sewer Master Plan contemplated servicing Villages 13 and 14 and Planning Areas 16 and 19 through the Salt Creek Interceptor; and (3) the fee funding program for the Salt Creek Interceptor has always assumed that the facility would service Villages 13 and 14 and Planning Areas 16 and 19.

- (3) The City does require the design to be prepared for a section of sewer replacement when actual field flow monitoring indicates that the d/D exceed 0.75. Based on the theoretical assumptions in this analysis, there are two pipe sections that could potentially reach this threshold.

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ATTACHMENT 1

SEWER FLOW CRITERIA AND SUMMARY OF COUNTY FLOWS

City of Chula Vista Sewer Duty Factors

LU Desingation	Duty Factor (gpd/EDU or gpd/ac)
Single Family	230
Multi-Family	182
Commercial	1,401
Industrial	712
Government/Office/Public Institution	1,313
Elementary School	1,181
Junior/Middle/High School	1,080
Olympic Training Center	582
Open Space Recreation	410

Village 13 Sewer Loading

Neighborhood	Land Use Designation	Quantity (units or ac)	ADWF (gpd)
R-1	Single Family	796	183,080
R-2	Single Family	211	48,530
R-3	Single Family	401	92,230
R-4	Single Family	263	60,490
R-5	Single Family	210	48,300
Mixed Use	Single Family	57	13,110
Mixed Use	Commercial	1.5	2,102
P-1	Open Space Recreation	2.9	0
P-2	Open Space Recreation	1.7	0
P-3	Open Space Recreation	2.3	0
P-4	Open Space Recreation	2.2	0
P-5	Open Space Recreation	10.3	4,223
P-6	Open Space Recreation	2.4	0
P-7	Open Space Recreation	2.9	0
P-8	Open Space Recreation	1.3	0
P-9	Open Space Recreation	2.6	0
S-1	Elementary School	10	11,810
PS	Government/Office/Public Institution	2.1	2,757
Resort Units	Multi-Family	200	36,400
Resort Commercial	Commercial	1.5	2,102
Total (gpd)			505,133
Total (gpm)			351

Residential Demand	gpd	482,140
	gpm	335
Non-Residential Demand	gpd	22,993
	gpm	16

Junction ID 9123

Village 14 Sewer Loading

Neighborhood	Land Use Designation	Quantity (units or ac)	ADWF (gpd)
1	Single Family	162	37,260
2	Single Family	136	31,280
3 - Mixed Use MF	Multi-Family	49	8,918
3.1 - Mixed Use Com	Commercial	0.3	482
4	Multi-Family	65	11,830
5 - Courtyard	Single Family	191	43,930
6	Single Family	109	25,070
7	Single Family	220	50,600
8	Single Family	204	46,920
9	Single Family	156	35,880
10	Single Family	69	15,870
11	Single Family	134	30,820
12	Single Family	63	14,490
Fire Station	Government/Office/Public Institution	2.0	2,626
Elem School	Elementary School	8.0	9,448
Community Facilities	Government/Office/Public Institution	5.6	7,353
Town Center Park	Open Space Recreation	4.4	1,796
Finger Park	Open Space Recreation	3.1	1,271
South Village Park	Open Space Recreation	2.2	902
Linear Park	Open Space Recreation	1.5	615
		Total (gpd)	377,361
		Total (gpm)	262

Residential Demand	gpd	352,868
	gpm	245
Non-Residential Demand	gpd	24,493
	gpm	17

Junction ID 13117

ATTACHMENT 2

HYDRAULIC MODELING OUTPUT

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
12869	13347	13134	15	197.8	4.20	Salt Creek	PVC	225	309	565	0.259	69.5%	
12870	13138	13385	15	41.9	0.20		PVC	252	347	612	0.455	46.5%	
13756	14016	14008	30	36.3	11.00	Salt Creek	PVC	2,566	3,527	4,733	0.429	49.5%	
13759	13950	13949	36	304.2	0.20	Salt Creek	PVC	3,335	4,572	5,876	0.458	46.1%	
13760	13951	13950	36	333.8	0.20	Salt Creek	PVC	3,335	4,572	5,872	0.444	47.8%	
13761	13952	13951	36	333.8	0.20	Salt Creek	PVC	3,335	4,572	5,867	0.447	47.4%	
13762	13953	13952	36	510.2	0.30	Salt Creek	PVC	3,310	4,540	5,830	0.430	49.4%	
13763	13954	13953	30	598.6	1.10	Salt Creek	PVC	3,269	4,483	5,766	0.436	48.7%	
13764	13955	13954	30	599.5	0.30	Salt Creek	PVC	3,255	4,466	5,742	0.467	45.1%	
13765	13956	13955	30	522.8	0.30	Salt Creek	PVC	3,255	4,467	5,736	0.538	36.7%	
13766	13957	13956	30	600.0	0.30	Salt Creek	PVC	3,255	4,468	5,731	0.522	38.6%	
13767	13935	13934	42	502.9	0.20	Salt Creek	PVC	4,190	5,722	7,142	0.401	52.8%	
13768	13936	13935	42	599.7	0.60	Salt Creek	PVC	4,167	5,693	7,105	0.349	58.9%	
13769	13937	13936	36	600.0	1.40	Salt Creek	PVC	4,167	5,693	7,095	0.328	61.4%	
13770	13938	13937	36	599.5	0.20	Salt Creek	PVC	4,167	5,694	7,088	0.419	50.7%	
13771	13939	13938	36	600.1	0.20	Salt Creek	PVC	4,167	5,695	7,081	0.519	38.9%	
13772	13940	13939	36	475.0	0.20	Salt Creek	PVC	4,167	5,697	7,074	0.502	40.9%	
13773	13941	13940	36	304.7	2.10	Salt Creek	PVC	4,167	5,699	7,069	0.389	54.2%	
13774	13942	13941	36	439.8	0.60	Salt Creek	PVC	3,832	5,244	6,610	0.336	60.5%	
13775	13943	13942	36	394.1	0.60	Salt Creek	PVC	3,832	5,244	6,604	0.381	55.2%	
13776	13944	13943	36	598.4	0.60	Salt Creek	PVC	3,832	5,245	6,599	0.365	57.1%	
13777	14007	13965	30	83.8	5.40	Salt Creek	PVC	2,566	3,525	4,744	0.337	60.4%	
13778	14008	13967	30	299.3	0.10	Salt Creek	PVC	2,566	3,526	4,736	0.666	21.6%	
13779	14009	14016	30	13.0	45.00	Salt Creek	PVC	2,566	3,527	4,732	0.161	81.1%	
13780	14010	14002	20	177.5	1.20	Salt Creek	PVC	1,102	1,514	2,398	0.425	50.0%	
13784	13917	13916	42	594.3	0.10	Main Street	PVC	4,924	6,711	8,292	0.557	34.5%	
13785	13918	13987	42	136.0	0.10	Main Street	PVC	4,920	6,707	8,271	0.563	33.8%	
13786	13919	13918	42	598.8	0.10	Main Street	PVC	4,915	6,701	8,263	0.560	34.1%	
13787	13920	13919	42	599.4	0.20	Main Street	PVC	4,915	6,702	8,254	0.511	39.9%	
13788	13921	13920	42	521.8	0.10	Main Street	PVC	4,915	6,702	8,244	0.505	40.6%	
13789	13922	13921	42	449.6	1.10	Main Street	PVC	4,910	6,695	8,229	0.413	51.4%	
13790	13923	14004	42	682.8	0.30	Salt Creek	PVC	4,198	5,730	7,249	0.335	60.6%	
13791	13924	13923	42	599.8	0.30	Salt Creek	PVC	4,198	5,730	7,238	0.392	53.9%	
13792	13925	13924	42	599.6	0.90	Salt Creek	PVC	4,198	5,731	7,229	0.309	63.6%	
13793	13926	13925	42	437.8	0.50	Salt Creek	PVC	4,190	5,720	7,209	0.312	63.3%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
13794	13927	13926	42	498.3	0.20	Salt Creek	PVC	4,190	5,720	7,202	0.379	55.4%	
13795	13928	13927	42	310.3	0.20	Salt Creek	PVC	4,190	5,721	7,194	0.404	52.5%	
13796	13929	13928	42	438.7	0.20	Salt Creek	PVC	4,190	5,721	7,189	0.398	53.2%	
13797	13930	13929	42	430.4	0.20		PVC	4,190	5,721	7,182	0.391	54.0%	
13798	13931	13930	42	447.1	0.20		PVC	4,190	5,721	7,175	0.428	49.6%	
13799	13932	13931	42	320.4	0.20	Salt Creek	PVC	4,190	5,721	7,168	0.407	52.1%	
13800	13988	9124	24	254.0	1.00	Salt Creek	PVC	1,247	1,713	2,757	0.361	57.5%	
13801	14034	14033	18	283.8	0.50	Salt Creek	PVC	520	715	1,273	0.447	47.4%	
13803	14035	14034	18	235.6	0.40	Salt Creek	PVC	517	711	1,260	0.449	47.2%	
13804	14166	14038	18	336.6	0.40	Salt Creek	PVC	474	651	1,116	0.410	51.8%	
13805	14039	14166	18	404.7	0.40	Salt Creek	PVC	474	651	1,114	0.422	50.4%	
13806	13850	13849	18	56.9	1.80	Salt Creek	PVC	469	646	1,096	0.286	66.4%	
13808	9123	13850	18	481.8	0.40	Salt Creek	PVC	469	646	1,096	0.376	55.8%	
13811	13933	14006	42	298.9	0.30	Salt Creek	PVC	4,190	5,721	7,156	0.384	54.8%	
13812	13934	13933	42	596.5	0.20	Salt Creek	PVC	4,190	5,722	7,151	0.403	52.6%	
13813	13945	13944	36	598.4	0.60	Salt Creek	PVC	3,832	5,246	6,591	0.366	56.9%	
13814	13946	13945	36	600.0	0.60	Salt Creek	PVC	3,832	5,246	6,584	0.366	56.9%	
13815	13947	13946	36	593.7	0.60	Salt Creek	PVC	3,832	5,248	6,576	0.366	56.9%	
13816	13948	13947	36	483.4	0.60	Salt Creek	PVC	3,832	5,249	6,569	0.363	57.3%	
13817	13949	13948	36	597.3	0.20	Salt Creek	PVC	3,335	4,571	5,884	0.419	50.7%	
13818	13958	13957	30	600.0	0.30	Salt Creek	PVC	2,629	3,608	4,864	0.499	41.3%	
13819	13959	13958	30	317.3	1.60	Salt Creek	PVC	2,629	3,608	4,857	0.391	54.0%	
13820	13960	13959	30	568.0	1.10	Salt Creek	PVC	2,629	3,608	4,853	0.334	60.7%	
13821	13961	13960	30	569.7	1.10	Salt Creek	PVC	2,629	3,609	4,847	0.350	58.8%	
13822	13962	13961	30	82.9	1.20	Salt Creek	PVC	2,629	3,609	4,841	0.344	59.5%	
13823	13963	13962	30	179.7	0.80	Salt Creek	PVC	2,629	3,609	4,840	0.381	55.2%	
13824	13964	13963	30	525.1	0.40	Salt Creek	PVC	2,629	3,609	4,838	0.433	49.1%	
13825	13987	13917	42	455.9	0.10	Main Street	PVC	4,920	6,707	8,278	0.558	34.4%	
13826	13989	13988	24	566.6	0.30	Salt Creek	PVC	1,247	1,713	2,754	0.436	48.7%	
13827	13990	13989	24	24.6	0.30	Salt Creek	PVC	1,193	1,639	2,658	0.465	45.3%	
13828	13991	13990	24	409.1	0.30	Salt Creek	PVC	1,193	1,639	2,658	0.489	42.5%	
13829	13992	13991	24	17.0	0.50	Salt Creek	PVC	1,193	1,639	2,654	0.480	43.5%	
13830	13993	13992	24	506.1	1.70	Salt Creek	PVC	1,193	1,639	2,654	0.392	53.9%	
13831	13994	13993	24	515.0	1.60	Salt Creek	PVC	1,193	1,639	2,650	0.307	63.9%	
13832	13995	13994	24	515.0	0.90	Salt Creek	PVC	1,193	1,639	2,645	0.347	59.2%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
13833	13996	13995	24	515.0	1.30	Salt Creek	PVC	1,193	1,639	2,640	0.353	58.5%	
13834	13997	13996	24	515.0	1.90	Salt Creek	PVC	1,193	1,639	2,635	0.310	63.5%	
13835	13998	13997	24	477.2	0.90	Salt Creek	PVC	1,193	1,639	2,631	0.338	60.2%	
13836	13999	14000	20	569.1	0.90	Salt Creek	PVC	1,102	1,514	2,411	0.424	50.1%	
13837	14000	13998	20	599.4	1.60	Salt Creek	PVC	1,102	1,514	2,415	0.418	50.8%	
13838	14001	13999	20	630.7	2.00	Salt Creek	PVC	1,102	1,514	2,406	0.412	51.5%	
13839	14002	14001	20	351.3	1.10	Salt Creek	PVC	1,102	1,514	2,401	0.399	53.1%	
13842	13965	13964	30	263.4	0.40	Salt Creek	PVC	2,566	3,525	4,747	0.465	45.3%	
13843	13966	14007	30	305.8	0.10	Salt Creek	PVC	2,566	3,525	4,743	0.532	37.4%	
13844	13967	13966	30	411.6	0.10	Salt Creek	PVC	2,566	3,526	4,740	0.645	24.1%	
13845	14004	13922	42	353.5	1.20	Main Street	PVC	4,436	6,055	7,580	0.273	67.9%	
13846	14005	13932	42	302.4	0.30	Salt Creek	PVC	4,190	5,721	7,163	0.392	53.9%	
13847	14006	14005	42	123.1	0.30	Salt Creek	PVC	4,190	5,721	7,158	0.382	55.1%	
15319	13114	13115	10	336.7	3.10	Salt Creek	PVC	49	167	107	0.203	71.0%	
15320	13115	13117	10	406.8	0.80	Salt Creek	PVC	49	67	109	0.330	52.9%	
15366	13159	13160	10	313.1	3.00	Salt Creek	PVC	34	67	48	0.114	83.7%	
15367	13160	13161	10	392.6	3.80	Salt Creek	PVC	36	47	51	0.141	79.9%	
15369	13161	13162	10	362.8	2.10	Salt Creek	PVC	42	48	86	0.162	76.9%	
15370	13162	13114	10	375.7	3.00	Salt Creek	PVC	43	59	87	0.162	76.9%	
15420	13140	9105	15	209.4	2.10	Salt Creek	PVC	358	59	811	0.318	62.6%	
15421	13141	13142	15	234.4	1.10	Salt Creek	PVC	358	492	814	0.350	58.8%	
15422	13142	13143	18	399.0	1.00	Salt Creek	PVC	358	492	817	0.280	67.1%	
15423	13143	13144	18	298.1	1.00	Salt Creek	PVC	360	492	823	0.287	66.2%	
15424	13144	13878	18	295.6	1.00	Salt Creek	PVC	360	496	825	0.266	68.7%	
15859	14033	14032	18	316.2	0.40	Salt Creek	PVC	540	496	1,328	0.464	45.4%	
15860	14032	14031	18	266.9	0.40	Salt Creek	PVC	540	741	1,330	0.502	40.9%	
15861	14031	14030	18	381.8	0.40	Salt Creek	PVC	540	742	1,334	0.374	56.0%	
15862	14030	14029	18	188.6	8.00	Salt Creek	PVC	545	743	1,347	0.269	68.4%	
15863	14029	14028	18	291.4	1.60	Salt Creek	PVC	545	748	1,349	0.349	58.9%	
15864	14028	14027	18	274.4	1.20	Salt Creek	PVC	545	748	1,351	0.330	61.2%	
15866	14027	13902	18	31.4	2.60		PVC	545	748	1,351	0.336	60.5%	
15897	13916	14228	42	600.0	0.10	Main Street	PVC	4,924	748	8,302	0.560	34.1%	
15898	14228	14220	42	600.0	0.10	Main Street	PVC	4,924	6,711	8,311	0.559	34.2%	
15899	13915	13914	42	73.2	0.10	Main Street	PVC	4,928	6,710	8,351	0.573	32.6%	
15900	14224	13915	42	265.4	0.10	Main Street	PVC	4,928	6,714	8,350	0.576	32.2%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
15901	14223	14224	42	73.2	0.10	Main Street	PVC	4,928	6,714	8,345	0.578	32.0%	
15902	14226	14227	42	600.0	0.10	Main Street	PVC	4,928	6,715	8,372	0.567	33.3%	
15903	13914	14225	42	199.4	0.10	Main Street	PVC	4,928	6,713	8,354	0.565	33.5%	
15904	14225	14226	42	600.0	0.10	Main Street	PVC	4,928	6,714	8,363	0.562	33.9%	
15905	14222	14223	42	600.0	0.10	Main Street	PVC	4,924	6,714	8,339	0.574	32.5%	
15906	14220	14221	42	600.0	0.10	Main Street	PVC	4,924	6,709	8,320	0.557	34.5%	
15907	14221	14222	42	598.1	0.10	Main Street	PVC	4,924	6,710	8,330	0.563	33.8%	
15908	14211	14235	42	955.5	0.10	Main Street	PVC	5,119	6,710	8,722	0.572	32.7%	
15909	14212	14211	42	146.8	0.10	Main Street	PVC	4,938	6,950	8,397	0.576	32.2%	
15910	14227	14213	42	268.5	0.10		PVC	4,930	6,726	8,378	0.572	32.7%	
15912	14213	14212	42	331.5	0.10		PVC	4,935	6,715	8,390	0.576	32.2%	
15913	14215	14071	42	78.0	0.40	Main Street	PVC	7,403	6,721	12,865	0.492	42.1%	
15914	14216	14215	42	26.3	0.50	Main Street	PVC	7,402	10,043	12,863	0.509	40.1%	
15915	14070	14214	42	204.4	1.10	Main Street	PVC	7,404	10,042	12,870	0.355	58.2%	
15916	14071	14070	42	22.6	1.40	Main Street	PVC	7,403	10,044	12,865	0.422	50.4%	
15917	14217	14114	42	46.7	0.40	Main Street	PVC	7,400	10,043	12,830	0.458	46.1%	
15918	14218	14216	42	400.3	0.20	Main Street	PVC	7,402	10,040	12,863	0.541	36.4%	
15919	14097	14218	42	133.4	0.30	Main Street	PVC	7,402	10,042	12,855	0.548	35.5%	
15920	14099	14232	42	177.3	0.40	Main Street	PVC	7,401	10,042	12,849	0.511	39.9%	
15921	14219	14099	42	129.1	0.20	Main Street	PVC	7,401	10,046	12,846	0.537	36.8%	
15922	14103	14219	42	18.1	0.70	Main Street	PVC	7,401	10,063	12,844	0.580	31.8%	
15923	14229	14103	42	298.6	1.60	Main Street	PVC	7,401	10,066	12,844	0.448	47.3%	
15924	14230	14229	42	298.6	1.40	Main Street	PVC	7,400	10,112	12,839	0.336	60.5%	
15925	14231	14230	42	83.8	1.30	Main Street	PVC	7,400	10,192	12,834	0.368	56.7%	
15926	14113	14231	42	90.8	1.20	Main Street	PVC	7,400	10,277	12,832	0.369	56.6%	
15927	14114	14113	42	63.8	1.40	Main Street	PVC	7,400	10,480	12,831	0.366	56.9%	
15928	14115	14217	42	19.2	0.70	Main Street	PVC	7,400	10,205	12,829	0.533	37.3%	
15929	14232	14097	42	176.3	0.30	Main Street	PVC	7,401	10,055	12,852	0.536	36.9%	
15930	14116	14115	42	268.5	1.50	Main Street	PVC	7,400	10,041	12,829	0.430	49.4%	
15931	14233	14116	42	400.0	0.10	Main Street	PVC	5,119	10,040	8,742	0.437	48.6%	
15932	14234	14233	42	289.7	0.10	Main Street	PVC	5,119	6,950	8,735	0.555	34.7%	
15933	14235	14234	42	567.9	0.10	Main Street	PVC	5,119	6,950	8,731	0.568	33.2%	
16314	13385	13139	15	276.7	2.10	Salt Creek	PVC	358	6,950	808	0.296	65.2%	
16315	13139	13140	15	398.1	2.30	Salt Creek	PVC	358	492	810	0.295	65.3%	
16316	13137	13138	15	336.9	1.20		PVC	252	492	611	0.453	46.7%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
16317	13136	13137	15	400.5	2.20	Salt Creek	PVC	252	347	609	0.276	67.5%	
16318	13135	13136	15	381.1	1.20	Salt Creek	PVC	225	347	569	0.274	67.8%	
16319	13134	13135	15	410.5	0.90	Salt Creek	PVC	225	309	567	0.301	64.6%	
16320	13131	13347	15	108.0	2.00	Salt Creek	PVC	201	309	526	0.233	72.6%	
16321	13130	13131	15	107.3	14.30	Salt Creek	PVC	174	276	451	0.198	76.7%	
16322	13123	13130	15	304.5	5.40	Salt Creek	PVC	174	239	451	0.162	80.9%	
16323	13122	13123	15	395.4	0.70	Salt Creek	PVC	174	239	449	0.253	70.2%	
16324	13120	13122	15	333.6	0.60	Salt Creek	PVC	171	239	439	0.307	63.9%	
16325	13119	13120	15	392.8	0.60	Salt Creek	PVC	171	235	436	0.297	65.1%	
16326	13117	13118	15	107.6	0.70	Salt Creek	PVC	171	235	432	0.290	65.9%	
16327	13118	13119	15	402.1	0.60	Salt Creek	PVC	171	235	434	0.299	64.8%	
16461	15046	15058	10	248.3	1.10	Salt Creek	PVC	221	235	366	0.420	40.0%	YES
16462	15058	15066	10	288.6	1.00	Salt Creek	PVC	227	304	381	0.452	35.4%	YES
16463	15066	15056	12	82.0	1.00	Salt Creek	PVC	775	312	1,171	0.639	8.7%	YES
16464	15056	15059	12	383.8	0.90	Salt Creek	PVC	808	1,070	1,220	0.692	1.1%	YES
16465	15059	15067	12	400.5	1.50	Salt Creek	PVC	808	1,117	1,221	0.569	18.7%	YES
16476	15067	15060	12	261.2	10.10	Salt Creek	PVC	808	1,117	1,223	0.335	52.1%	YES
16477	15060	15061	12	349.3	8.10	Salt Creek	PVC	839	1,117	1,267	0.381	45.6%	YES
16478	15061	15062	12	369.9	1.10	Salt Creek	PVC	839	1,160	1,269	0.652	6.9%	YES
16479	15062	15063	12	350.6	1.30	Salt Creek	PVC	839	1,160	1,271	0.615	12.1%	YES
16480	15063	15065	12	350.0	6.80	Salt Creek	PVC	839	1,160	1,272	0.380	45.7%	YES
16481	15065	15064	12	275.0	10.30	Salt Creek	PVC	839	1,160	1,273	0.369	47.3%	YES
16482	15064	15069	12	336.9	1.10	Salt Creek	PVC	839	1,160	1,275	0.649	7.3%	YES
16492	13902	14012	21	112.6	3.40	Salt Creek	PVC	1,102	1,160	2,394	0.284	66.6%	
16493	14012	14013	21	14.4	7.50	Salt Creek	PVC	1,102	1,514	2,394	0.291	65.8%	
16494	14013	14014	21	156.5	1.70	Salt Creek	PVC	1,102	1,514	2,395	0.552	35.1%	
16495	14014	14025	21	40.4	0.40	Salt Creek	PVC	1,102	1,514	2,396	0.621	26.9%	
16496	14025	14010	20	94.7	6.40	Salt Creek	PVC	1,102	1,514	2,397	0.335	60.6%	
16543	14074	15114	42	544.2	0.40	Main Street	PVC	7,404	1,514	12,882	0.434	48.9%	
16544	15114	14069	42	499.2	1.40	Main Street	PVC	7,404	10,045	12,890	0.338	60.2%	
16545	14069	14068	42	32.9	1.30	Main Street	PVC	7,407	10,045	12,893	0.347	59.2%	
16546	14068	14067	42	507.5	1.10	Main Street	PVC	7,407	10,048	12,903	0.455	46.5%	
16547	14067	14066	42	600.0	0.30	Main Street	PVC	7,408	10,049	12,914	0.450	47.1%	
16548	14066	14082	42	590.0	1.20	Main Street	PVC	7,410	10,050	12,925	0.354	58.4%	
16549	14082	14077	42	585.0	1.20	Main Street	PVC	7,413	10,052	12,939	0.335	60.6%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
16550	14077	14065	42	47.3	2.00	Main Street	PVC	7,413	10,057	12,940	0.354	58.4%	
16551	14065	14072	42	510.7	0.70	Main Street	PVC	7,414	10,057	12,949	0.402	52.7%	
16552	14072	14073	42	474.3	0.70	Main Street	PVC	7,414	10,057	12,957	0.402	52.7%	
16553	14073	14095	42	71.1	0.70	Main Street	PVC	7,414	10,058	12,958	0.432	49.2%	
16555	13911	14129	42	600.0	0.20	Main Street	PVC	7,422	10,058	12,987	0.581	31.6%	
16556	14129	14128	42	600.0	0.20	Main Street	PVC	7,423	10,067	12,998	0.496	41.6%	
16557	14128	14127	42	600.0	0.80	Main Street	PVC	7,423	10,068	13,008	0.431	49.3%	
16558	14127	14126	42	600.0	0.50	Main Street	PVC	7,424	10,068	13,019	0.432	49.2%	
16559	14126	14125	42	45.0	0.80	Main Street	PVC	7,424	10,070	13,020	0.406	52.2%	
16560	14125	13912	42	254.1	0.60	Main Street	PVC	7,425	10,070	13,025	0.425	50.0%	
16561	13912	14117	42	600.0	0.60	Main Street	PVC	7,426	10,071	13,036	0.406	52.2%	
16562	14117	14120	42	600.0	0.90	Main Street	PVC	7,427	10,072	13,047	0.388	54.4%	
16563	14120	14122	42	575.0	0.70	Main Street	PVC	7,431	10,073	13,062	0.424	50.1%	
16564	14122	14121	42	51.2	0.50	Main Street	PVC	7,431	10,079	13,063	0.474	44.2%	
16565	14121	14123	42	164.2	0.40	Main Street	PVC	7,431	10,079	13,066	0.457	46.2%	
16566	14123	14119	42	535.6	0.60	Main Street	PVC	7,431	10,079	13,074	0.454	46.6%	
16567	14119	14124	42	386.8	0.30	Main Street	PVC	7,431	10,079	13,081	0.553	34.9%	
16568	14124	TWY_MH_0	42	92.9	0.30	Main Street	PVC	7,432	10,079	13,084	0.634	25.4%	
16569	14003	14118	42	211.0	2.60		PVC	8,436	10,081	14,817	0.417	50.9%	
16570	14118	UTFALL_915	42	1127.4	0.40		PVC	8,436	11,420	14,835	0.518	39.1%	
16749	14040	14039	18	304.5	3.20	Salt Creek	PVC	473	11,420	1,108	0.333	60.8%	
16751	14041	14040	18	182.5	3.00	Salt Creek	PVC	471	650	1,103	0.249	70.7%	
16753	13849	14041	18	149.8	2.60	Salt Creek	PVC	470	647	1,097	0.256	69.9%	
16807	15288	15066	12	14.7	1.90	Salt Creek	PVC	488	646	695	0.431	38.4%	YES
16808	15289	15288	12	211.8	2.10	Salt Creek	PVC	489	673	694	0.425	39.3%	YES
16809	15287	15289	12	399.9	1.00	Salt Creek	PVC	490	673	694	0.428	38.9%	YES
17086	13878	9123	15	336.8	2.50	Salt Creek	PVC	360	673	827	0.407	52.1%	
17093	15538	13980	12	174.0	0.60	Salt Creek	PVC	839	496	1,278	0.826	-18.0%	YES
17094	13979	13978	24	406.7	0.20	Salt Creek	PVC	2,304	1,160	4,343	0.685	19.4%	
17095	13978	13977	24	400.0	0.20	Salt Creek	PVC	2,304	3,171	4,346	0.672	20.9%	
17096	13977	13976	24	187.4	0.20	Salt Creek	PVC	2,304	3,170	4,347	0.643	24.4%	
17097	13976	13975	24	164.5	0.30	Salt Creek	PVC	2,304	3,170	4,349	0.632	25.6%	
17098	13975	14026	24	200.0	3.30	Salt Creek	PVC	2,304	3,169	4,350	0.340	60.0%	
17099	14026	13974	24	231.3	3.10	Salt Creek	PVC	2,304	3,169	4,353	0.334	60.7%	
17100	13974	13973	24	154.2	3.90	Salt Creek	PVC	2,309	3,169	4,361	0.326	61.6%	

T-1. 2050 PWWF Model Result with Existing Pipeline Conditions

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Existing CIP Planned
17101	13973	13972	24	220.5	4.10	Salt Creek	PVC	2,309	3,176	4,363	0.307	63.9%	
17102	13972	13971	24	348.9	6.30	Salt Creek	PVC	2,309	3,176	4,366	0.292	65.6%	
17103	13971	13985	24	283.3	5.30	Salt Creek	PVC	2,566	3,176	4,721	0.314	63.1%	
17104	13985	13970	24	400.0	4.30	Salt Creek	PVC	2,566	3,528	4,724	0.380	55.3%	
17105	13970	13969	24	377.9	1.40	Salt Creek	PVC	2,566	3,528	4,728	0.434	48.9%	
17106	13969	13968	24	328.1	1.50	Salt Creek	PVC	2,566	3,527	4,730	0.508	40.2%	
17107	13968	14009	30	177.3	0.40	Salt Creek	PVC	2,566	3,527	4,732	0.451	46.9%	
17111	15069	15542	12	128.1	5.10	Salt Creek	PVC	839	3,527	1,275	0.413	41.0%	YES
17112	15542	15538	12	393.6	3.90	Salt Creek	PVC	839	1,160	1,277	0.558	20.3%	YES
17528	13881	14035	18	303.9	0.40		PVC	497	1,160	1,191	0.447	47.4%	
17549	14095	15953	42	455.3	0.70		PVC	7,416	10,060	12,968	0.375	55.9%	
17550	15953	13911	42	144.7	2.50		PVC	7,421	10,066	12,976	0.426	49.9%	
9097	14214	14074	42	135.8	1.10	Main Street	PVC	7,404	10,045	12,873	0.443	47.9%	
9101	13847	13881	18	72.5	0.00		PVC	474	652	1,120	0.514	39.5%	
9110	9105	13141	15	313.7	1.30	Salt Creek	PVC	358	492	813	0.350	58.8%	
9118	9124	13980	24	84.6	8.40	Salt Creek	PVC	1,247	1,713	2,758	0.384	54.8%	
9119	13980	13979	24	320.7	0.20	Salt Creek	PVC	2,087	2,870	4,037	0.658	22.6%	
9182	14038	13847	18	316.2	0.50		PVC	474	652	1,119	0.496	41.6%	
CDT-59	TWY_MH_0	14003	42	602.4	0.20			8,431	11,414	14,807	0.482	43.3%	
IECGM101	IECMH30	IECMH36	15	865.7	0.40			241	328	328	0.271	68.1%	
IECGM107	IECMH10	IECMH40	15	844.9	0.40			203	268	268	0.259	69.5%	
IECGM109	IECMH40	IECMH42	15	936.1	0.40			200	268	268	0.258	69.6%	
IECGM111	IECMH42	IECMH44	15	897.4	0.40			196	267	267	0.335	60.6%	
IECGM113	IECMH44	IECMH46	15	1349.9	0.40			475	653	653	0.413	51.4%	
IECGM115	IECMH46	IECMH48	15	1211.3	0.40			481	653	653	0.417	50.9%	
IECGM117	IECMH48	13922	15	1027.2	0.40			475	653	653	0.402	52.7%	
IECGM119	IECMH36	14004	15	4295.4	0.40			238	326	326	0.279	67.2%	
IECGM121	IECMH50	IECMH56	12	709.0	0.40			70	93	93	0.205	70.7%	
IECGM127	IECMH56	IECMH26	12	1041.9	0.40			67	93	93	0.238	66.0%	
IECGM87	IECMH26	IECMH28	12	1005.3	0.40			148	203	203	0.259	63.0%	
IECGM89	IECMH28	IECMH22	15	1933.6	0.40			147	203.337	203	0.224	73.6%	
IECGM91	IECMH22	IECMH30	15	1167.2	0.40			238	327.761	327.761	0.250	70.6%	

T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Capacity Used by Project	Existing CIP Planned	<10% Capacity Remaining
12869	13347	13134	15	197.8	4.20	Salt Creek	PVC	487	670	1,043	0.356	58.1%	11.4%		
12870	13138	13385	15	41.9	0.20		PVC	514	708	1,090	0.592	30.4%	16.1%		
13756	14016	14008	30	36.3	11.00	Salt Creek	PVC	3,179	4,372	5,852	0.495	41.8%	7.8%		
13759	13950	13949	36	304.2	0.20	Salt Creek	PVC	3,948	5,412	6,990	0.508	40.2%	5.9%		
13760	13951	13950	36	353.8	0.20	Salt Creek	PVC	3,948	5,412	6,986	0.492	42.1%	5.6%		
13761	13952	13951	36	353.8	0.20	Salt Creek	PVC	3,948	5,412	6,982	0.494	41.9%	5.5%		
13762	13953	13952	36	510.2	0.30	Salt Creek	PVC	3,923	5,380	6,945	0.475	44.1%	5.3%		
13763	13954	13953	30	598.6	1.10	Salt Creek	PVC	3,882	5,324	6,882	0.48	43.5%	5.2%		
13764	13955	13954	30	599.5	0.30	Salt Creek	PVC	3,868	5,307	6,858	0.518	39.1%	6.0%		
13765	13956	13955	30	522.8	0.30	Salt Creek	PVC	3,868	5,309	6,852	0.6	29.4%	7.3%		
13766	13957	13956	30	600.0	0.30	Salt Creek	PVC	3,868	5,310	6,848	0.583	31.4%	7.2%		
13767	13935	13934	42	502.9	0.20	Salt Creek	PVC	4,803	6,559	8,253	0.435	48.8%	4.0%		
13768	13936	13935	42	599.7	0.60	Salt Creek	PVC	4,780	6,530	8,216	0.378	55.5%	3.4%		
13769	13937	13936	36	600.0	1.40	Salt Creek	PVC	4,780	6,531	8,207	0.353	58.5%	2.9%		
13770	13938	13937	36	599.5	0.20	Salt Creek	PVC	4,780	6,531	8,199	0.454	46.6%	4.1%		
13771	13939	13938	36	600.1	0.20	Salt Creek	PVC	4,780	6,533	8,192	0.566	33.4%	5.5%		
13772	13940	13939	36	475.0	0.20	Salt Creek	PVC	4,780	6,535	8,186	0.549	35.4%	5.5%		
13773	13941	13940	36	304.7	2.10	Salt Creek	PVC	4,780	6,537	8,181	0.423	50.2%	4.0%		
13774	13942	13941	36	439.8	0.60	Salt Creek	PVC	4,445	6,082	7,722	0.366	56.9%	3.5%		
13775	13943	13942	36	394.1	0.60	Salt Creek	PVC	4,445	6,083	7,717	0.415	51.2%	4.0%		
13776	13944	13943	36	598.4	0.60	Salt Creek	PVC	4,445	6,083	7,712	0.397	53.3%	3.8%		
13777	14007	13965	30	83.8	5.40	Salt Creek	PVC	3,179	4,369	5,863	0.38	55.3%	5.1%		
13778	14008	13967	30	299.3	0.10	Salt Creek	PVC	3,179	4,371	5,855	0.771	9.3%	12.4%		YES
13779	14009	14016	30	13.0	45.00	Salt Creek	PVC	3,179	4,372	5,852	0.179	78.9%	2.1%		
13780	14010	14002	20	177.5	1.20	Salt Creek	PVC	1,715	2,359	3,528	0.533	37.3%	12.7%		
13784	13917	13916	42	594.3	0.10	Main Street	PVC	5,537	7,550	9,403	0.605	28.8%	5.6%		
13785	13918	13987	42	136.0	0.10	Main Street	PVC	5,533	7,545	9,382	0.611	28.1%	5.6%		
13786	13919	13918	42	598.8	0.10	Main Street	PVC	5,528	7,540	9,374	0.608	28.5%	5.6%		
13787	13920	13919	42	599.4	0.20	Main Street	PVC	5,528	7,540	9,365	0.556	34.6%	5.3%		
13788	13921	13920	42	521.8	0.10	Main Street	PVC	5,528	7,540	9,355	0.546	35.8%	4.8%		
13789	13922	13921	42	449.6	1.10	Main Street	PVC	5,523	7,534	9,340	0.443	47.9%	3.5%		
13790	13923	14004	42	682.8	0.30	Salt Creek	PVC	4,811	6,568	8,360	0.361	57.5%	3.1%		
13791	13924	13923	42	599.8	0.30	Salt Creek	PVC	4,811	6,568	8,350	0.424	50.1%	3.8%		
13792	13925	13924	42	599.6	0.90	Salt Creek	PVC	4,811	6,568	8,340	0.335	60.6%	3.1%		
13793	13926	13925	42	437.8	0.50	Salt Creek	PVC	4,803	6,558	8,320	0.337	60.4%	2.9%		
13794	13927	13926	42	498.3	0.20	Salt Creek	PVC	4,803	6,558	8,313	0.41	51.8%	3.6%		
13795	13928	13927	42	310.3	0.20	Salt Creek	PVC	4,803	6,558	8,305	0.438	48.5%	4.0%		
13796	13929	13928	42	438.7	0.20	Salt Creek	PVC	4,803	6,558	8,300	0.431	49.3%	3.9%		
13797	13930	13929	42	430.4	0.20		PVC	4,803	6,558	8,293	0.422	50.4%	3.6%		
13798	13931	13930	42	447.1	0.20		PVC	4,803	6,559	8,286	0.464	45.4%	4.2%		

T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Capacity Used by Project	Existing CIP Planned	<10% Capacity Remaining
13799	13932	13931	42	320.4	0.20	Salt Creek	PVC	4,803	6,559	8,279	0.442	48.0%	4.1%		
13800	13988	9124	24	254.0	1.00	Salt Creek	PVC	1,860	2,558	3,877	0.436	48.7%	8.8%		
13801	14034	14033	18	283.8	0.50	Salt Creek	PVC	1,133	1,559	2,413	0.667	21.5%	25.9%		
13803	14035	14034	18	235.6	0.40	Salt Creek	PVC	1,130	1,555	2,383	0.67	21.2%	26.0%		
13804	14166	14038	18	336.6	0.40	Salt Creek	PVC	1,087	1,495	2,236	0.623	26.7%	25.1%		
13805	14039	14166	18	404.7	0.40	Salt Creek	PVC	1,087	1,495	2,234	0.645	24.1%	26.2%		
13806	13850	13849	18	56.9	1.80	Salt Creek	PVC	1,082	1,489	2,216	0.428	49.6%	16.7%		
13808	9123	13850	18	481.8	0.40	Salt Creek	PVC	1,082	1,489	2,215	0.575	32.4%	23.4%		
13811	13933	14006	42	298.9	0.30	Salt Creek	PVC	4,803	6,559	8,267	0.417	50.9%	3.9%		
13812	13934	13933	42	596.5	0.20	Salt Creek	PVC	4,803	6,559	8,263	0.436	48.7%	3.9%		
13813	13945	13944	36	598.4	0.60	Salt Creek	PVC	4,445	6,084	7,704	0.398	53.2%	3.8%		
13814	13946	13945	36	600.0	0.60	Salt Creek	PVC	4,445	6,085	7,697	0.399	53.1%	3.9%		
13815	13947	13946	36	593.7	0.60	Salt Creek	PVC	4,445	6,086	7,689	0.398	53.2%	3.8%		
13816	13948	13947	36	483.4	0.60	Salt Creek	PVC	4,445	6,088	7,683	0.396	53.4%	3.9%		
13817	13949	13948	36	597.3	0.20	Salt Creek	PVC	3,948	5,411	6,999	0.46	45.9%	4.8%		
13818	13958	13957	30	600.0	0.30	Salt Creek	PVC	3,242	4,451	5,981	0.561	34.0%	7.3%		
13819	13959	13958	30	317.3	1.60	Salt Creek	PVC	3,242	4,451	5,975	0.44	48.2%	5.8%		
13820	13960	13959	30	568.0	1.10	Salt Creek	PVC	3,242	4,452	5,971	0.373	56.1%	4.6%		
13821	13961	13960	30	569.7	1.10	Salt Creek	PVC	3,242	4,452	5,965	0.392	53.9%	4.9%		
13822	13962	13961	30	82.9	1.20	Salt Creek	PVC	3,242	4,452	5,959	0.386	54.6%	4.9%		
13823	13963	13962	30	179.7	0.80	Salt Creek	PVC	3,242	4,452	5,958	0.428	49.6%	5.5%		
13824	13964	13963	30	525.1	0.40	Salt Creek	PVC	3,242	4,453	5,956	0.489	42.5%	6.6%		
13825	13987	13917	42	455.9	0.10	Main Street	PVC	5,533	7,545	9,389	0.605	28.8%	5.5%		
13826	13989	13988	24	566.6	0.30	Salt Creek	PVC	1,860	2,558	3,874	0.536	36.9%	11.8%		
13827	13990	13989	24	24.6	0.30	Salt Creek	PVC	1,806	2,484	3,778	0.562	33.9%	11.4%		
13828	13991	13990	24	409.1	0.30	Salt Creek	PVC	1,806	2,484	3,778	0.602	29.2%	13.3%		
13829	13992	13991	24	17.0	0.50	Salt Creek	PVC	1,806	2,484	3,774	0.601	29.3%	14.2%		
13830	13993	13992	24	506.1	1.70	Salt Creek	PVC	1,806	2,484	3,774	0.484	43.1%	10.8%		
13831	13994	13993	24	515.0	1.60	Salt Creek	PVC	1,806	2,484	3,770	0.371	56.4%	7.5%		
13832	13995	13994	24	515.0	0.90	Salt Creek	PVC	1,806	2,484	3,765	0.422	50.4%	8.8%		
13833	13996	13995	24	515.0	1.30	Salt Creek	PVC	1,806	2,484	3,760	0.428	49.6%	8.8%		
13834	13997	13996	24	515.0	1.90	Salt Creek	PVC	1,806	2,484	3,756	0.373	56.1%	7.4%		
13835	13998	13997	24	477.2	0.90	Salt Creek	PVC	1,806	2,484	3,751	0.41	51.8%	8.5%		
13836	13999	14000	20	569.1	0.90	Salt Creek	PVC	1,715	2,359	3,533	0.531	37.5%	12.6%		
13837	14000	13998	20	599.4	1.60	Salt Creek	PVC	1,715	2,359	3,537	0.514	39.5%	11.3%		
13838	14001	13999	20	630.7	2.00	Salt Creek	PVC	1,715	2,359	3,531	0.515	39.4%	12.1%		
13839	14002	14001	20	351.3	1.10	Salt Creek	PVC	1,715	2,359	3,529	0.499	41.3%	11.8%		
13842	13965	13964	30	263.4	0.40	Salt Creek	PVC	3,179	4,369	5,866	0.527	38.0%	7.3%		
13843	13966	14007	30	305.8	0.10	Salt Creek	PVC	3,179	4,369	5,862	0.598	29.6%	7.8%		
13844	13967	13966	30	411.6	0.10	Salt Creek	PVC	3,179	4,370	5,859	0.736	13.4%	10.7%		

T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Capacity Used by Project	Existing CIP Planned	<10% Capacity Remaining
13845	14004	13922	42	353.5	1.20	Main Street	PVC	5,049	6,892	8,691	0.292	65.6%	2.2%		
13846	14005	13932	42	302.4	0.30	Salt Creek	PVC	4,803	6,559	8,274	0.425	50.0%	3.9%		
13847	14006	14005	42	123.1	0.30	Salt Creek	PVC	4,803	6,559	8,269	0.415	51.2%	3.9%		
15319	13114	13115	10	336.7	3.10	Salt Creek	PVC	49	67	107	0.203	71.0%	0.0%		
15320	13115	13117	10	406.8	0.80	Salt Creek	PVC	49	67	109	0.435	37.9%	15.0%		
15366	13159	13160	10	313.1	3.00	Salt Creek	PVC	34	47	48	0.114	83.7%	0.0%		
15367	13160	13161	10	392.6	3.80	Salt Creek	PVC	36	48	51	0.141	79.9%	0.0%		
15369	13161	13162	10	362.8	2.10	Salt Creek	PVC	42	59	86	0.162	76.9%	0.0%		
15370	13162	13114	10	375.7	3.00	Salt Creek	PVC	43	59	87	0.162	76.9%	0.0%		
15420	13140	9105	15	209.4	2.10	Salt Creek	PVC	620	853	1,290	0.407	52.1%	10.5%		
15421	13141	13142	15	234.4	1.10	Salt Creek	PVC	620	853	1,293	0.45	47.1%	11.8%		
15422	13142	13143	18	399.0	1.00	Salt Creek	PVC	620	853	1,296	0.356	58.1%	8.9%		
15423	13143	13144	18	298.1	1.00	Salt Creek	PVC	622	856	1,301	0.365	57.1%	9.2%		
15424	13144	13878	18	295.6	1.00	Salt Creek	PVC	622	856	1,303	0.339	60.1%	8.6%		
15859	14033	14032	18	316.2	0.40	Salt Creek	PVC	1,153	1,585	2,523	0.696	18.1%	27.3%		
15860	14032	14031	18	266.9	0.40	Salt Creek	PVC	1,153	1,586	2,494	0.753	11.4%	29.5%		
15861	14031	14030	18	381.8	0.40	Salt Creek	PVC	1,153	1,587	2,475	0.546	35.8%	20.2%		
15862	14030	14029	18	188.6	8.00	Salt Creek	PVC	1,158	1,592	2,487	0.371	56.4%	12.0%		
15863	14029	14028	18	291.4	1.60	Salt Creek	PVC	1,158	1,592	2,486	0.492	42.1%	16.8%		
15864	14028	14027	18	274.4	1.20	Salt Creek	PVC	1,158	1,592	2,484	0.465	45.3%	15.9%		
15866	14027	13902	18	31.4	2.60		PVC	1,158	1,592	2,484	0.442	48.0%	12.5%		
15897	13916	14228	42	600.0	0.10	Main Street	PVC	5,537	7,549	9,412	0.608	28.5%	5.6%		
15898	14228	14220	42	600.0	0.10	Main Street	PVC	5,537	7,548	9,421	0.606	28.7%	5.5%		
15899	13915	13914	42	73.2	0.10	Main Street	PVC	5,541	7,552	9,460	0.621	26.9%	5.6%		
15900	14224	13915	42	265.4	0.10	Main Street	PVC	5,541	7,552	9,459	0.625	26.5%	5.8%		
15901	14223	14224	42	73.2	0.10	Main Street	PVC	5,541	7,553	9,455	0.628	26.1%	5.9%		
15902	14226	14227	42	600.0	0.10	Main Street	PVC	5,541	7,551	9,482	0.616	27.5%	5.8%		
15903	13914	14225	42	199.4	0.10	Main Street	PVC	5,541	7,552	9,464	0.613	27.9%	5.6%		
15904	14225	14226	42	600.0	0.10	Main Street	PVC	5,541	7,552	9,473	0.61	28.2%	5.6%		
15905	14222	14223	42	600.0	0.10	Main Street	PVC	5,537	7,547	9,449	0.624	26.6%	5.9%		
15906	14220	14221	42	600.0	0.10	Main Street	PVC	5,537	7,548	9,430	0.605	28.8%	5.6%		
15907	14221	14222	42	598.1	0.10	Main Street	PVC	5,537	7,548	9,440	0.612	28.0%	5.8%		
15908	14211	14235	42	955.5	0.10	Main Street	PVC	5,737	7,788	9,831	0.618	27.3%	5.4%		
15909	14212	14211	42	146.8	0.10	Main Street	PVC	5,551	7,563	9,506	0.623	26.7%	5.5%		
15910	14227	14213	42	268.5	0.10		PVC	5,543	7,553	9,488	0.621	26.9%	5.8%		
15912	14213	14212	42	331.5	0.10		PVC	5,548	7,559	9,499	0.624	26.6%	5.6%		
15913	14215	14071	42	78.0	0.40	Main Street	PVC	8,025	10,881	13,973	0.518	39.1%	3.1%		
15914	14216	14215	42	26.3	0.50	Main Street	PVC	8,024	10,881	13,971	0.535	37.1%	3.1%		
15915	14070	14214	42	204.4	1.10	Main Street	PVC	8,026	10,883	13,977	0.371	56.4%	1.9%		
15916	14071	14070	42	22.6	1.40	Main Street	PVC	8,025	10,881	13,973	0.443	47.9%	2.5%		

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15917	14217	14114	42	46.7	0.40	Main Street	PVC	8,065	10,878	13,937	0.482	43.3%	2.8%		
15918	14218	14216	42	400.3	0.20	Main Street	PVC	8,028	10,881	13,970	0.569	33.1%	3.3%		
15919	14097	14218	42	133.4	0.30	Main Street	PVC	8,044	10,880	13,963	0.578	32.0%	3.5%		
15920	14099	14232	42	177.3	0.40	Main Street	PVC	8,070	10,879	13,957	0.539	36.6%	3.3%		
15921	14219	14099	42	129.1	0.20	Main Street	PVC	8,088	10,879	13,954	0.565	33.5%	3.3%		
15922	14103	14219	42	18.1	0.70	Main Street	PVC	8,089	10,879	13,952	0.61	28.2%	3.5%		
15923	14229	14103	42	298.6	1.60	Main Street	PVC	8,117	10,879	13,951	0.47	44.7%	2.6%		
15924	14230	14229	42	298.6	1.40	Main Street	PVC	8,168	10,878	13,946	0.352	58.6%	1.9%		
15925	14231	14230	42	83.8	1.30	Main Street	PVC	8,230	10,878	13,941	0.387	54.5%	2.2%		
15926	14113	14231	42	90.8	1.20	Main Street	PVC	8,272	10,878	13,940	0.387	54.5%	2.1%		
15927	14114	14113	42	63.8	1.40	Main Street	PVC	8,244	10,878	13,938	0.386	54.6%	2.4%		
15928	14115	14217	42	19.2	0.70	Main Street	PVC	8,093	10,878	13,937	0.558	34.4%	2.9%		
15929	14232	14097	42	176.3	0.30	Main Street	PVC	8,053	10,879	13,960	0.565	33.5%	3.4%		
15930	14116	14115	42	268.5	1.50	Main Street	PVC	8,018	10,878	13,936	0.451	46.9%	2.5%		
15931	14233	14116	42	400.0	0.10	Main Street	PVC	5,737	7,788	9,851	0.462	45.6%	2.9%		
15932	14234	14233	42	289.7	0.10	Main Street	PVC	5,737	7,788	9,845	0.593	30.2%	4.5%		
15933	14235	14234	42	567.9	0.10	Main Street	PVC	5,737	7,788	9,840	0.61	28.2%	4.9%		
16314	13385	13139	15	276.7	2.10	Salt Creek	PVC	620	853	1,286	0.379	55.4%	9.8%		
16315	13139	13140	15	398.1	2.30	Salt Creek	PVC	620	853	1,289	0.377	55.6%	9.6%		
16316	13137	13138	15	336.9	1.20		PVC	514	708	1,090	0.601	29.3%	17.4%		
16317	13136	13137	15	400.5	2.20	Salt Creek	PVC	514	708	1,088	0.373	56.1%	11.4%		
16318	13135	13136	15	381.1	1.20	Salt Creek	PVC	487	670	1,048	0.375	55.9%	11.9%		
16319	13134	13135	15	410.5	0.90	Salt Creek	PVC	487	670	1,046	0.418	50.8%	13.8%		
16320	13131	13347	15	108.0	2.00	Salt Creek	PVC	463	637	1,004	0.327	61.5%	11.1%		
16321	13130	13131	15	107.3	14.30	Salt Creek	PVC	436	599	930	0.284	66.6%	10.1%		
16322	13123	13130	15	304.5	5.40	Salt Creek	PVC	436	599	929	0.233	72.6%	8.4%		
16323	13122	13123	15	395.4	0.70	Salt Creek	PVC	436	599	928	0.374	56.0%	14.2%		
16324	13120	13122	15	333.6	0.60	Salt Creek	PVC	433	595	917	0.457	46.2%	17.6%		
16325	13119	13120	15	392.8	0.60	Salt Creek	PVC	433	595	915	0.442	48.0%	17.1%		
16326	13117	13118	15	107.6	0.70	Salt Creek	PVC	433	595	910	0.433	49.1%	16.8%		
16327	13118	13119	15	402.1	0.60	Salt Creek	PVC	433	595	913	0.446	47.5%	17.3%		
16461	15046	15058	10	248.3	1.10	Salt Creek	PVC	221	304	366	0.42	40.0%	0.0%	YES	
16462	15058	15066	10	288.6	1.00	Salt Creek	PVC	227	312	381	0.452	35.4%	0.0%	YES	
16463	15066	15056	12	82.0	1.00	Salt Creek	PVC	775	1,070	1,171	0.639	8.7%	0.0%	YES	YES
16464	15056	15059	12	383.8	0.90	Salt Creek	PVC	808	1,117	1,220	0.692	1.1%	0.0%	YES	YES
16465	15059	15067	12	400.5	1.50	Salt Creek	PVC	808	1,117	1,221	0.569	18.7%	0.0%	YES	
16476	15067	15060	12	261.2	10.10	Salt Creek	PVC	808	1,117	1,223	0.335	52.1%	0.0%	YES	
16477	15060	15061	12	349.3	8.10	Salt Creek	PVC	839	1,160	1,267	0.381	45.6%	0.0%	YES	
16478	15061	15062	12	369.9	1.10	Salt Creek	PVC	839	1,160	1,269	0.652	6.9%	0.0%	YES	YES
16479	15062	15063	12	350.6	1.30	Salt Creek	PVC	839	1,160	1,271	0.615	12.1%	0.0%	YES	

T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

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16480	15063	15065	12	350.0	6.80	Salt Creek	PVC	839	1,160	1,272	0.38	45.7%	0.0%	YES	
16481	15065	15064	12	225.0	10.30	Salt Creek	PVC	839	1,160	1,273	0.369	47.3%	0.0%	YES	
16482	15064	15069	12	336.9	1.10	Salt Creek	PVC	839	1,160	1,275	0.649	7.3%	0.0%	YES	YES
16492	13902	14012	21	112.6	3.40	Salt Creek	PVC	1,715	2,359	3,525	0.354	58.4%	8.2%		
16493	14012	14013	21	14.4	7.50	Salt Creek	PVC	1,715	2,359	3,525	0.357	58.0%	7.8%		
16494	14013	14014	21	156.5	1.70	Salt Creek	PVC	1,715	2,359	3,526	0.666	21.6%	13.4%		
16495	14014	14025	21	40.4	0.40	Salt Creek	PVC	1,715	2,359	3,526	0.75	11.8%	15.2%		
16496	14025	14010	20	94.7	6.40	Salt Creek	PVC	1,715	2,359	3,527	0.414	51.3%	9.3%		
16543	14074	15114	42	544.2	0.40	Main Street	PVC	8,024	10,883	13,989	0.455	46.5%	2.5%		
16544	15114	14069	42	499.2	1.40	Main Street	PVC	8,024	10,883	13,997	0.353	58.5%	1.8%		
16545	14069	14068	42	32.9	1.30	Main Street	PVC	8,026	10,886	14,001	0.362	57.4%	1.8%		
16546	14068	14067	42	507.5	1.10	Main Street	PVC	8,027	10,888	14,010	0.477	43.9%	2.6%		
16547	14067	14066	42	600.0	0.30	Main Street	PVC	8,027	10,889	14,021	0.472	44.5%	2.6%		
16548	14066	14082	42	590.0	1.20	Main Street	PVC	8,029	10,891	14,033	0.37	56.5%	1.9%		
16549	14082	14077	42	585.0	1.20	Main Street	PVC	8,032	10,895	14,047	0.35	58.8%	1.8%		
16550	14077	14065	42	47.3	2.00	Main Street	PVC	8,032	10,895	14,048	0.37	56.5%	1.9%		
16551	14065	14072	42	510.7	0.70	Main Street	PVC	8,032	10,896	14,056	0.421	50.5%	2.2%		
16552	14072	14073	42	474.3	0.70	Main Street	PVC	8,033	10,896	14,065	0.42	50.6%	2.1%		
16553	14073	14095	42	71.1	0.70	Main Street	PVC	8,033	10,897	14,066	0.453	46.7%	2.5%		
16555	13911	14129	42	600.0	0.20	Main Street	PVC	8,040	10,905	14,095	0.612	28.0%	3.6%		
16556	14129	14128	42	600.0	0.20	Main Street	PVC	8,041	10,906	14,106	0.521	38.7%	2.9%		
16557	14128	14127	42	600.0	0.80	Main Street	PVC	8,041	10,907	14,116	0.451	46.9%	2.4%		
16558	14127	14126	42	600.0	0.50	Main Street	PVC	8,042	10,909	14,127	0.452	46.8%	2.4%		
16559	14126	14125	42	45.0	0.80	Main Street	PVC	8,042	10,909	14,128	0.425	50.0%	2.2%		
16560	14125	13912	42	254.1	0.60	Main Street	PVC	8,043	10,910	14,133	0.445	47.6%	2.4%		
16561	13912	14117	42	600.0	0.60	Main Street	PVC	8,044	10,911	14,144	0.424	50.1%	2.1%		
16562	14117	14120	42	600.0	0.90	Main Street	PVC	8,045	10,912	14,155	0.406	52.2%	2.1%		
16563	14120	14122	42	575.0	0.70	Main Street	PVC	8,049	10,917	14,170	0.443	47.9%	2.2%		
16564	14122	14121	42	51.2	0.50	Main Street	PVC	8,049	10,917	14,171	0.497	41.5%	2.7%		
16565	14121	14123	42	164.2	0.40	Main Street	PVC	8,049	10,918	14,173	0.479	43.6%	2.6%		
16566	14123	14119	42	535.6	0.60	Main Street	PVC	8,049	10,918	14,182	0.476	44.0%	2.6%		
16567	14119	14124	42	386.8	0.30	Main Street	PVC	8,049	10,918	14,188	0.581	31.6%	3.3%		
16568	14124	TWY_MH_0	42	92.9	0.30	Main Street	PVC	8,051	10,919	14,192	0.665	21.8%	3.6%		
16569	14003	14118	42	211.0	2.60		PVC	9,054	12,258	15,924	0.435	48.8%	2.1%		
16570	14118	UTFAILL_915	42	1127.4	0.40		PVC	9,054	12,258	15,942	0.54	36.5%	2.6%		
16749	14040	14039	18	304.5	3.20	Salt Creek	PVC	1,086	1,494	2,228	0.496	41.6%	19.2%		
16751	14041	14040	18	182.5	3.00	Salt Creek	PVC	1,084	1,491	2,223	0.358	57.9%	12.8%		
16753	13849	14041	18	149.8	2.60	Salt Creek	PVC	1,083	1,489	2,217	0.371	56.4%	13.5%		
16807	15288	15066	12	14.7	1.90	Salt Creek	PVC	490	673	695	0.431	38.4%	0.0%	YES	
16808	15289	15288	12	211.8	2.10	Salt Creek	PVC	491	673	694	0.425	39.3%	0.0%	YES	

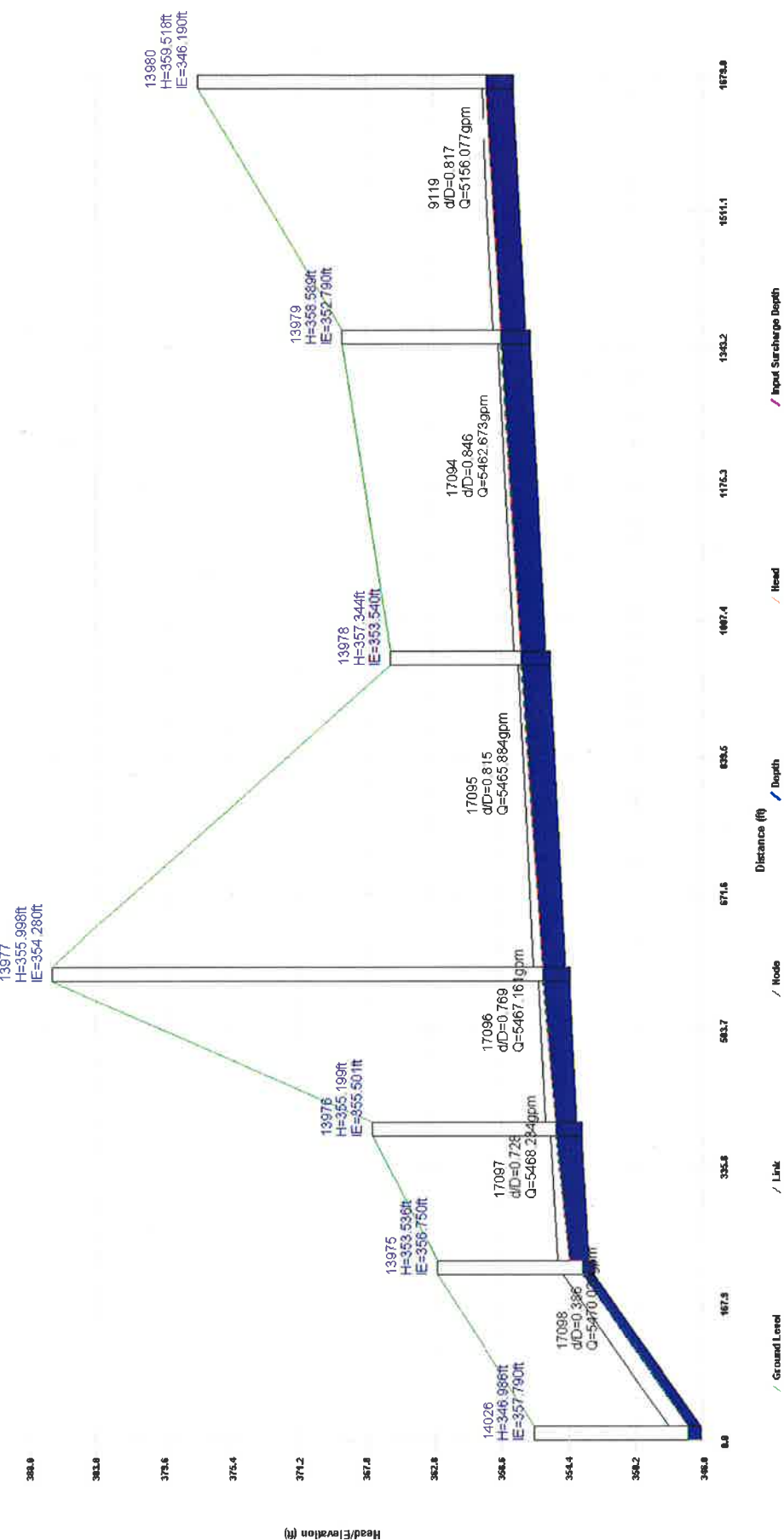
T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Capacity Used by Project	Existing CIP Planned	<10% Capacity Remaining
16809	15287	15289	12	399.9	1.00	Salt Creek	PVC	493	673	694	0.428	38.9%	0.0%	YES	
17086	13878	9123	15	336.8	2.50	Salt Creek	PVC	622	856	1,305	0.585	31.2%	20.9%		
17093	15538	13980	12	174.0	0.60	Salt Creek	PVC	839	1,160	1,278	0.828	-18.3%	0.3%	YES	YES
17094	13979	13978	24	406.7	0.20	Salt Creek	PVC	2,917	4,017	5,463	0.846	0.5%	18.9%		YES
17095	13978	13977	24	400.0	0.20	Salt Creek	PVC	2,917	4,016	5,466	0.815	4.1%	16.8%		YES
17096	13977	13976	24	187.4	0.20	Salt Creek	PVC	2,917	4,015	5,467	0.769	9.5%	14.8%		YES
17097	13976	13975	24	164.5	0.30	Salt Creek	PVC	2,917	4,015	5,469	0.728	14.4%	11.3%		
17098	13975	14026	24	200.0	3.30	Salt Creek	PVC	2,917	4,015	5,471	0.386	54.6%	5.4%		
17099	14026	13974	24	231.3	3.10	Salt Creek	PVC	2,917	4,015	5,473	0.378	55.5%	5.2%		
17100	13974	13973	24	154.2	3.90	Salt Creek	PVC	2,922	4,022	5,481	0.369	56.6%	5.1%		
17101	13973	13972	24	220.5	4.10	Salt Creek	PVC	2,922	4,022	5,483	0.348	59.1%	4.8%		
17102	13972	13971	24	348.9	6.30	Salt Creek	PVC	2,922	4,022	5,486	0.328	61.4%	4.2%		
17103	13971	13985	24	283.3	5.30	Salt Creek	PVC	3,179	4,373	5,841	0.351	58.7%	4.4%		
17104	13985	13970	24	400.0	4.30	Salt Creek	PVC	3,179	4,373	5,844	0.428	49.6%	5.6%		
17105	13970	13969	24	377.9	1.40	Salt Creek	PVC	3,179	4,373	5,847	0.491	42.2%	6.7%		
17106	13969	13968	24	328.1	1.50	Salt Creek	PVC	3,179	4,372	5,850	0.575	32.4%	7.9%		
17107	13968	14009	30	177.3	0.40	Salt Creek	PVC	3,179	4,372	5,852	0.508	40.2%	6.7%		
17111	15069	15542	12	128.1	5.10	Salt Creek	PVC	839	1,160	1,275	0.413	41.0%	0.0%	YES	
17112	15542	15538	12	393.6	3.90	Salt Creek	PVC	839	1,160	1,277	0.558	20.3%	0.0%	YES	
17528	13881	14035	18	303.9	0.40		PVC	1,110	1,526	2,311	0.671	21.1%	26.4%		
17549	14095	15953	42	455.3	0.70		PVC	8,034	10,898	14,075	0.393	53.8%	2.1%		
17550	15953	13911	42	144.7	2.50		PVC	8,039	10,904	14,084	0.448	47.3%	2.6%		
9097	14214	14074	42	135.8	1.10	Main Street	PVC	8,026	10,883	13,980	0.464	45.4%	2.5%		
9101	13847	13881	18	72.5	0.00		PVC	1,087	1,496	2,239	0.758	10.8%	28.7%		
9110	9105	13141	15	313.7	1.30	Salt Creek	PVC	620	853	1,292	0.452	46.8%	12.0%		
9118	9124	13980	24	84.6	8.40	Salt Creek	PVC	1,860	2,558	3,878	0.48	43.5%	11.3%		
9119	13980	13979	24	320.7	0.20	Salt Creek	PVC	2,700	3,716	5,159	0.817	3.9%	18.7%		YES
9182	14038	13847	18	316.2	0.50		PVC	1,087	1,496	2,239	0.731	14.0%	27.6%		
CDT-59	TWY_MH_0	14003	42	602.4	0.20			9,049	12,252	15,915	0.502	40.9%	2.4%		
IECGM101	IECMH30	IECMH36	15	865.7	0.40			240	328	328	0.271	68.1%	0.0%		
IECGM107	IECMH40	IECMH40	15	844.9	0.40			203	268	268	0.259	69.5%	0.0%		
IECGM109	IECMH40	IECMH42	15	936.1	0.40			200	268	268	0.258	69.6%	0.0%		
IECGM111	IECMH42	IECMH44	15	897.4	0.40			196	267	267	0.335	60.6%	0.0%		
IECGM113	IECMH44	IECMH46	15	1349.9	0.40			475	653	653	0.413	51.4%	0.0%		
IECGM115	IECMH46	IECMH48	15	1211.3	0.40			481	653	653	0.417	50.9%	0.0%		
IECGM117	IECMH48	13922	15	1027.2	0.40			475	653	653	0.402	52.7%	0.0%		
IECGM119	IECMH36	14004	15	4295.4	0.40			238	326	326	0.279	67.2%	0.0%		
IECGM121	IECMH50	IECMH56	12	709.0	0.40			70	93	93	0.205	70.7%	0.0%		
IECGM127	IECMH56	IECMH26	12	1041.9	0.40			67	93	93	0.238	66.0%	0.0%		
IECGM87	IECMH26	IECMH28	12	1005.3	0.40			150	203	203	0.259	63.0%	0.0%		

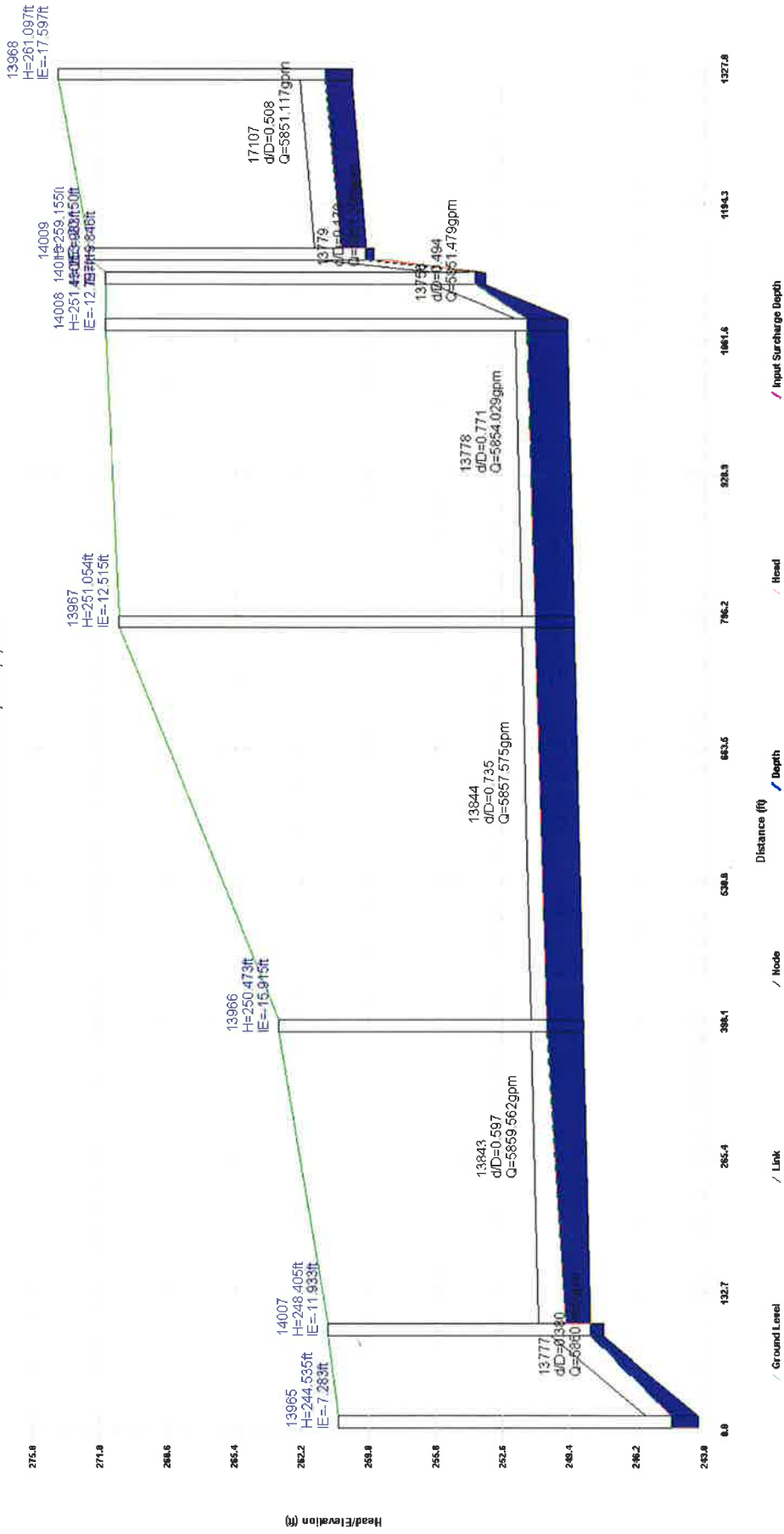
T-2. 2050 PWWF Model Result with Existing Pipeline Conditions and Village 13 and 14 Flows Added

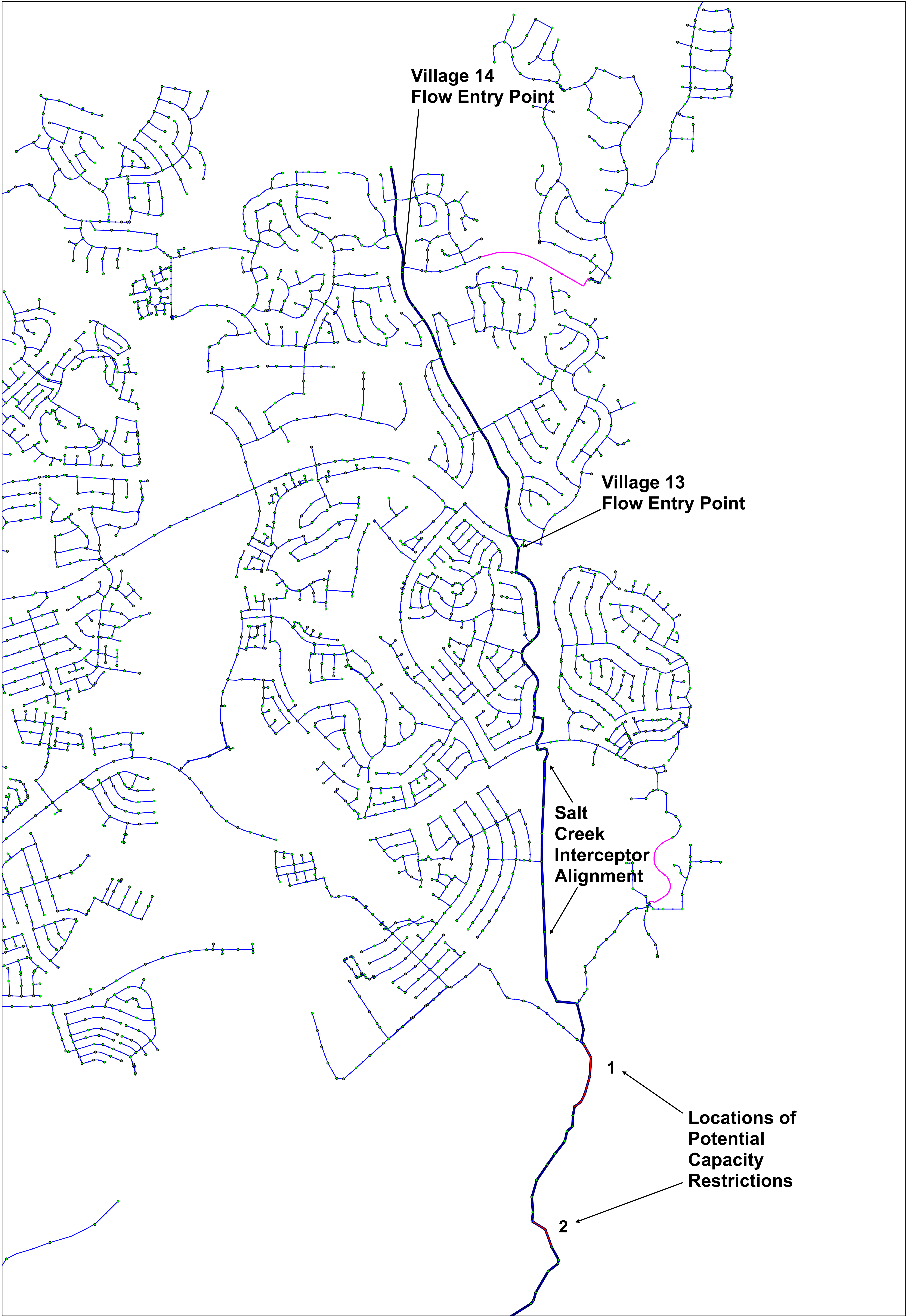
ID	From MH	To MH	Existing Diameter (in)	Length (ft.)	Slope (%)	Basin	Pipe Material	ADWF (gpm)	PDWF (gpm)	PWWF (gpm)	PWWF d/D	Hydraulic Capacity Remaining (%)	Capacity Used by Project	Existing CIP Planned	<10% Capacity Remaining
IECGM89	IECMH28	IECMH22	15	1933.6	0.40			148	203	203	0.224	73.6%	0.0%		
IECGM91	IECMH22	IECMH30	15	1167.2	0.40			238	328	328	0.25	70.6%	0.0%		

HGL Profile with Maximum Data of Links 17098,17097,...,9119



HGL Profile with Maximum Data of Links 13777,13843,....,17107





**Salt Creek Interceptor
Potential Capacity Restrictions**