

Town of Turner Valley - Infrastructure Priority Listing & 10-Year Capital Plan

A) FACTS IN BRIEF

Population Projection	
Year Population	
1998	1,575
2002	1,600
2006	1,908 (actual census)
2007	2,042
2008	2,022
2010	2145
2012	2276
2014	2414
2016	2561
2018	2717
2020	2883
2025	3342
2030	3874
2035	4491
Build-Out	8,321 (±50 Year Time Frame)

Notes: 1. Based on a population growth rate 3% over next 20 years.
 2. No additional population added for the addition of the Gas Plant Interpretive Center (negligible facilities).
 3. Build-Out Population Projection includes 3,400 population in Gateways of Turner Valley development. (South Turner Valley)
 4. Build-Out also includes Dunham, Double D, Okalta, Valley Meadows, and Commercial properties being fully developed.
 5. Black Diamond Year 2002 Population estimated at 1,930 (Assuming 2% per year growth since Year 2000 Population of 1,857).

Infrastructure Capacities (Based on Population)			
		Population	Notes (Years of Capacity from 2010)
- Water Treatment Plant	Current (new WTP)	2794	Capacity after construction (9 years).
	Add Treatment Unit	3489	Add third train (16 years).
- Raw Water Supply	Current (wells)	2600	Wells 5, 7 & 8 (5 years).
	Add Off-Stream Gallery	2600	To offset if wells are shut in (5 years).
	Raw Water Reservoir	>3500	Expansion (17 years)
- Raw Water License	Wells 2, 5, 7	2175	81.4 million lgal per year (6 years).
	Well 8 (IO Objective)	3033	Can be shut in by Diversion Lisc (12 years).
- Treated Water Storage	Current (500,000 lgal)	3260	Existing single concrete reservoir (14 years).
	Add Storage (500,000 lgal)	6520	Add second reservoir (> 25 years).
- Regional Sewage Plant	Current	3432	Includes Black Diamond & Turner Valley. 3635 for Black Diamond. 3195 for Turner Valley (13 years).
	Maximum (Blk. Dia. + T.V.)	6830	
- Regional Gravity Trunk W. of G&CC	Current Gravity Main	6423	Existing Trunk (>25 years).
- North Lift Station	Existing Lift Station	872	Services Dunham and North Area (5 years) Replace pumps (>20 years)
	With Pump Upgrade	1500	
- Royalite Lift Station	New Lift Station	460	Stage 1 with 2 - 3 hp pumps (5 to 7 years). Stage 2 with 2 - 7.5 hp pumps (>20 years).
	Replace Pumps	1275	

Note: 1. Upgrade items and associated costs are provided on Page 2.
 2. Costs on Page 2 include Capital, Contingencies, and Professional Services (No GST).

Town of Turner Valley
10 Year Infrastructure Assessment 2010 - 2019
PRIORITY LISTING for Roads, Water, and Sanitary Mains
Final

Note: Priority Listing Only. Actual dates when work to be carried out depends upon available budgets in any given year.

Location	Material	Repair/Replace	Est. Cost(\$)	Number	Est. Cost(\$)	Number	Est. Cost(\$)	Material	Replace/Repair	Est. Cost(\$)	Number	Est. Cost(\$)	Sanitary Improvements Est. Cost(\$)	Water Improvements Est. Cost(\$)	Road Improvements Est. Cost(\$)	Total
Windsor Ave (from Sunset Drive to John St)								AC	200	\$90,000	1	\$2,500				\$92,500
Kennedy to Caulkins								AC	470	\$282,000	2	\$5,000				\$287,000
SUB TOTAL										\$362,000		\$7,500				\$369,500

Royal Ave (from Main to West)	VCT	525	\$131,250	7	\$31,500	54	\$108,000									\$311,750
Hubert Street (bwn Frontenac & Edgar)																\$57,000
Hubert Street (bwn Royal & Frontenac)																\$42,000
Lane bwn Royal and Edward Ave (from Lane south of Royal)								AC	270	\$108,000	2	\$5,000				\$113,000
Robert Street N cul-de-sac								AC	60	\$24,000	1	\$2,500				\$26,500
Lane bwn Windsor & Sunset (from Robert to Hubert)								AC 1007	470	\$188,000	4	\$10,000				\$198,000
SUB TOTAL										\$320,000		\$17,500				\$337,500

John Street (bwn Windsor & Sunset)																\$45,000
Hubert Street (bwn Sunset & Windsor)	VCT	50	\$12,500	1	\$4,500	3	\$8,000									\$23,000
Main Street Turnouts																\$190,862
Hubert Street (bwn Edgar & Windsor)																\$50,000
Anderson Cres.	PVC															\$130,000
SUB TOTAL										\$4,500						\$425,862

Decalia Road 2013																\$700,000
Durham Lane																\$160,250
SUB TOTAL										\$13,559						\$860,250

Frontenac Ave.	VCT	500	\$125,000	7	\$31,500	65	\$130,000									\$286,500
Robert St. (north of Sunset)	VCT	95	\$23,750	1	\$4,500	10	\$20,000									\$48,250
Durham Lane																\$48,772
Rowley Close																\$23,000
Rowley Close																\$24,000
Raymond Close																\$24,000
SUB TOTAL										\$148,750						\$334,772

Note: Costs include construction plus 25% allowance for engineering and contingency.

	Sanitary Sewer		Manholes		Services		Watermain		Valves		Sanitary Improvements		Water Improvements		Road Improvements		Total
	Material	Repar(m)	Est. Cost(\$)	Number	Est. Cost(\$)	Number	Est. Cost(\$)	Material	Repar(m)	Est. Cost(\$)	Number	Est. Cost(\$)	Est. Cost(\$)	Est. Cost(\$)	Est. Cost(\$)	Est. Cost(\$)	
Edgar Ave. (from John to Main)	VCT	810	\$202,500	8	\$36,000	\$150,000						\$388,500			\$388,500	\$888,500	
Windsor Ave. (from Sunset to Gooding)	VCT	985	\$238,750	10	\$45,000	\$182,000	200 AC	150	\$60,000	2	\$5,000	\$465,750	\$65,000	\$340,000	\$870,750	\$870,750	
Gooding Lane	VCT	96	\$24,000									\$24,000		\$59,000	\$83,000	\$83,000	
Blacklock Way	PVC													\$54,000	\$54,000	\$54,000	
John St. (from Windsor to Egan)	AC	116	\$29,000	2	\$9,000	\$6,000						\$44,000		\$34,000	\$78,000	\$78,000	
John St. (from Sunset South)	PVC	26	\$13,000									\$13,000		\$89,000	\$102,000	\$102,000	
Sunset Blvd SE		720	\$180,000	7	\$31,500	\$22,000						\$233,500		\$151,000	\$390,500	\$390,500	
Sunset Blvd SW	VCT	970	\$242,500	10	\$45,000	\$280,000						\$547,500		\$58,200	\$605,700	\$605,700	
Kennedy Drive SE														\$165,000	\$165,000	\$165,000	
Calhoun Place SE														\$223,000	\$223,000	\$223,000	
Turner Drive SW														\$41,000	\$41,000	\$41,000	
Dunham Close SE														\$41,000	\$41,000	\$41,000	
N. Royakite Way	PVC													\$64,000	\$64,000	\$64,000	
Okaita Road														\$450,000	\$450,000	\$450,000	
Royal Ave. (east of Main)														\$27,000	\$27,000	\$27,000	
Imperial Drive	PVC	350	\$175,000									\$175,000	\$757,196	\$1,726,373	\$2,657,569	\$2,657,569	
Madison St		150	\$162,889									\$162,889		\$60,000	\$222,889	\$222,889	
Dunham Lane														\$39,587	\$39,587	\$39,587	
Southwood Road														\$45,000	\$45,000	\$45,000	
Lane N. of Kennedy Dr.														\$98,000	\$98,000	\$98,000	
Main Street		1035	\$227,750	11	\$49,500	\$60,000						\$337,250		\$298,334	\$635,584	\$635,584	
SUB TOTAL			\$1,764,905		\$249,000	\$580,000						\$817,196	\$822,196	\$4,368,491	\$7,271,392	\$7,271,392	
TOTAL			\$2,213,996		\$285,000	\$944,000						\$1,512,355	\$30,000	\$3,445,996	\$1,542,855	\$6,627,990	\$11,526,841

2015/2016/2017/2018/2019

Note: Costs include construction plus 25% allowance for engineering and contingency. Note: Priority Listing Only. Actual dates when work to be carried out depends upon available Budgets in any given Year.

PREPARED BY: MPE ENGINEERING L.LTD.