

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) | | | |
|---|----------------------------|-------------------|---|
| | | <u>Population</u> | <u>Notes (Years of Capacity from 2010)</u> |
| - 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. |
| | Maximum (Blk. Dia. + T.V.) | 6830 | 3635 for Black Diamond. 3195 for Turner Valley (13 years). |
| - 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) |
| | With Pump Upgrade | 1500 | Replace pumps (>20 years) |
| - Royalite Lift Station | New Lift Station | 460 | Stage 1 with 2 - 3 hp pumps (5 to 7 years). |
| | Replace Pumps | 1275 | Stage 2 with 2 - 7.5 hp pumps (>20 years). |

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).

| | 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 | | \$530,750 | \$670,750 | |
| Gooding Lane | VCT | 96 | \$24,000 | | | | | | | | | \$24,000 | | | \$24,000 | \$39,000 | |
| Blacklock Way | PVC | | | | | | | | | | | | | | \$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 | |
| John St. (from Sunset South) | PVC | 26 | \$13,000 | | | \$22,000 | | | | | | \$13,000 | | | \$89,000 | \$102,000 | |
| Sunset Blvd SE | | 720 | \$180,000 | 7 | \$31,500 | \$22,000 | | | | | | \$233,500 | | | \$151,000 | \$390,500 | |
| Sunset Blvd SW | VCT | 970 | \$242,500 | 10 | \$45,000 | \$280,000 | | | | | | \$547,500 | | | \$58,200 | \$605,700 | |
| Kennedy Drive SE | | | | | | | | | | | | | | | \$165,000 | \$165,000 | |
| Calhoun Place SE | | | | | | | | | | | | | | | \$223,000 | \$223,000 | |
| Turner Drive SW | | | | | | | | | | | | | | | \$41,000 | \$41,000 | |
| Dunham Close SE | | | | | | | | | | | | | | | \$41,000 | \$197,677 | |
| N. Royakite Way | PVC | | | | | | | | | | | | | | \$64,000 | \$64,000 | |
| Okata Road | | | | | | | | | | | | | | | \$450,000 | \$612,889 | |
| Royal Ave. (east of Main) | | | | | | | | | | | | | | | \$27,000 | \$27,000 | |
| Imperial Drive | PVC | 350 | \$175,000 | | | \$757,196 | | | | | | \$175,000 | \$757,196 | \$1,726,373 | \$2,687,569 | | |
| Madison St | | 150 | \$162,889 | | | | | | | | | \$162,889 | \$60,000 | | \$222,889 | | |
| Dunham Lane | | | | | | | | | | | | | | | \$39,587 | \$39,587 | |
| Southwood Road | | | | | | | | | | | | | | | \$45,000 | \$45,000 | |
| Lane N. of Kennedy Dr. | | | | | | | | | | | | | | | \$98,000 | \$98,000 | |
| Main Street | | 1035 | \$227,750 | 11 | \$49,500 | \$60,000 | | | | | | \$337,250 | | | \$298,334 | \$635,584 | |
| SUB TOTAL | | | \$1,764,905 | | \$249,000 | \$580,000 | | | | | | \$817,196 | \$2,680,905 | \$922,196 | \$4,368,491 | \$7,297,392 | |
| TOTAL | | | \$2,213,996 | | \$285,000 | \$944,000 | | | | | | \$1,512,355 | \$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.