

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The following conclusions have been drawn from this Study and the following recommendations made.

GENERAL

1. The attentions of this study are directed towards servicing and developing the future areas beyond the areas currently serviced, within the Study Area.

WATERWORKS SYSTEM

Conclusions

1. A review of the groundwater potential is currently underway in an attempt to locate a high flow producing well for development in 1982.
2. The time can be foreseen when wells alone can no longer continue to be economically competitive as the only source of water for Edson.
3. The current reservoir storage in Edson is adequate to serve a population of 10,500.
4. The two reservoirs at 50 and 11 Avenue and the Glenwood Reservoir are small by comparison with the ultimate needs and it may not be feasible to upgrade them for continued use in the ultimate system.
5. The existing distribution system has only one pressure zone but ultimately it will be necessary to establish three pressure zones in order to serve the total Study Area.

Recommendations

1. Proceed to secure the sites recommended for the Water Booster Station on Edson Drive and the proposed reservoir on Grande Prairie Trail near the microwave tower site.
2. Adopt in principle the overall servicing concept presented in this report.
3. Construct the Booster Station with pumps sized on an interim basis.
4. Proceed to construct the Pressure Reducing Valve No. 3 at the north end of 48 Street and Edson Drive.
5. Develop one new high capacity well or two smaller ones.
6. Review the long-term Water Supply situation as it relates to the declining ground water supply potential in the area and to the McLeod River.
7. Proceed with construction of the proposed Trunk Mains and associated PRV's on an as required basis.

SEWERAGE AND SEWAGE TREATMENT SYSTEMS

Conclusions

1. The treatment system is generally adequate to a population equivalent of 10,500 based on an average composite flow of 450 l pcd.
2. If the same treatment process is used the system can be expanded on the same site to accommodate an ultimate population of 25,000.
3. The present Collection System and Outfall Line will be at capacity once infilling is completed in areas already serviced.

4. A new trunk collection system is needed to serve new development areas.

Recommendations

1. Adopt in principle the overall servicing plan as presented in this report using the total Gravity Flow Alternative.
2. New trunk mains should be constructed on an as required basis as new areas are developed.
3. When the new South Trunk is completed the flows in the 56 Street Trunk should be connected into it in order to relieve the 1st and 2nd Avenue Trunk Line.
4. When the new North Trunk is completed the north half of the Block Y subdivision should be connected into it.
5. When the Town's population nears the 9,000 mark a study should be undertaken to determine the best staging and timing for expanding the sewage treatment facilities.

STORM DRAINAGE SYSTEM

Conclusions

1. The existing drainage system is generally satisfactory with the exception of two culverts which need repair or replacement and three culverts to be cleared of debris.
2. Wase Creek and Poplar Creek Basins are at capacity and any new developments should not be permitted to increase the rate of flow into the creeks within the Town boundary. Channel capacity of these creeks improves outside the Town boundary.

3. Bench Creek appears satisfactory for the present and future with the possible exception of some channel improvement north of airport.

Recommendations

1. The two designated existing culverts along Wase Creek at 6th Avenue and 48 Street and 2 Avenue and 48 Street should be repaired or replaced.
2. The three culverts located along Wase Creek at 12 Avenue and 47 Street, located between 4 and 5 Avenue and 48 Street and located at 4 Avenue and 48 Street should be cleared of debris.
3. The proposed stormwater management concept presented herein should be adopted for the Town's future development. The concept includes the following:
 - the minor system for future development should be designed for a 1 in 2 year storm for residential areas and 1 in 5 storm for business and commercial areas as a continuation of past practice.
 - undertake a flood plain delineation along Bench Creek between crossings #1 and 2 to determine the 1 in 100 year flood plain and the extent of channel improvement required.
 - provide storage ponds in sub-basins 5, 6, 7 and 8a and 8b.
 - replace crossings #18 and 21 with a 1.22 metre and a 1.83 metre diameter CSP respectively.
 - improve the existing drainage ditch in sub-basins 2 and 3.
 - provide an open channel to convey runoff from sub-basins 2 and 3 into a tributary to the McLeod River.
4. The Stormwater Management Concept should be submitted to Alta Environment for their review and overall agreement.
5. A detailed design of each stormwater pond should be carried out to determine the final surface area, depth, invert elevations and the size of outlet control pipe

to meet Alberta Environment "Objections for Stormwater Management". This should be done on an as required basis as new areas are developed.

TRANSPORTATION SYSTEM

Conclusions

1. The Existing roadway system within the existing Town is adequate to approximately the 20,000 population level but requires upgrading to go beyond this level.
2. Additional collector and arterial roads in the proposed new development areas are needed to handle expected future flows and to carry heavy truck traffic and hazardous goods traffic away from Residential Areas.

Recommendations

1. Adopt in principle recommended the overall transportation network.
2. Design and construct Road B from Secondary Road 748 west to Alberta Street within a 1 to 5 year period.
3. Proceed with the detailed design and construction of other major arterial roads on an as required basis as new areas are developed.

SOLID WASTE

Conclusions

1. Further discussion with Alberta Environment and with members of the Region is required to determine the complete terms of reference and conditions of operation for any regional scheme.

2. If the Regional Authority does not equalize haul costs there may be no advantage for Edson to enter a Regional Scheme and there could be a significant disadvantage.
3. The existing landfill site is approaching the end of its capacity.

Recommendations

1. A firm policy statement should be developed by members of the Jasper-Edson Regional Area on how the proposed regional solid waste scheme would operate including financial policies.
2. This statement should then be assessed to determine if it is beneficial for Edson to enter the Regional Scheme.