DUFRESNE GROUP
CONSULTING ENGINEERS

WASTEWATER SYSTEM MASTER PLAN

MANCHESTER, VERMONT

Dufresne Group developed the Wastewater Master Plan for the Town of Manchester, Vermont wastewater system in three phases. Phase I consisted of investigations, inspections and evaluations of the existing facilities including the Wastewater Treatment Facility and waste-water pump stations. A topographic survey was conducted to obtain location, rim and invert elevation, condition and photos of all manholes in the collection system.

Phase II consisted of flow monitoring within the wastewater collection system, creating a basemap and developing a computer model of the wastewater collection system. The computer model was used to determine deficiencies in the collection system. The effects of future growth were also evaluated including likely areas of expansion and hydraulic capacity of the existing sewer mains. A prioritized list of deficiencies was prepared and recommendations were made for the system improvements.

In Phase III, the final report was prepared to summarize the investigations, inspections and evaluations made in Phase I and the deficiencies and recommendations developed in Phase II. The report also included estimated costs of recommended improvements, a capital improvement plan and recommendations for future wastewater rates and project scheduling and phasing.

KEY FEATURES

- Flow metering studies conducted during three seasons
- GIS basemap of system created for 19.6 miles of sewer main
- Hydraulic computer model used to evaluate collection system and identify deficiencies
- Capital Improvement Plan developed including rate projections

54 Main Street, P.O. Box B, Windsor, VT 05089 (t) 802.674.2904 (f) 802.674.2913 (e) info@dufresnegroup.com
297 South Main Street, Barre, VT 05641 (t) 802.479.3698 (f) 802.479.2261 (e) d_g_barre@dufresnegroup.com
459 Portland Street, Suite 102, St. Johnsbury, VT 05819 (t) 802.748.8605 (f) 802.748.4512 (e) d_g_stj@dufresnegroup.com
1996 Depot Street, Manchester Center, VT 05255 (t) 802.768.8291 (f) 802.768.8315 (e) dg_manchester@dufresnegroup.com