Phase	Description	Study Area Need Category	20-Year Flow Projection (gallons per day)	Ultimate Buildout Flow Projection (gallons per day)	Active Groundwater Discharge Area [1] (acres)	Length of Sewers [1] (feet)	Number of Pump Stations [1] (#)
1	Sewer service to Study Areas 1 and 2 [2]	Imperative/ Mid-Term	449,000	461,000	10	68,000	9
2	Sewer service to Study Area 7	Mid-Term	352,000	375,000	8	115,000	6
3	Sewer service to Study Areas 3 and 6	Long-Term	104,000	130,000	2	27,000	4
4	Sewer service to Study Areas 4 and 5	Low	241,000	293,000	6	102,000	21 [3]

Notes:
1. These are conceptual estimates for planning purposes only.
2. Flow projection is based on assumption that 180,000 gpd from Study Area 1 will be pumped to Wareham for treatment and disposal.
3. Study Area 5 is a candidate for low pressure or vacuum sewers due to topography that will necessitate a significant number of pump stations.

PLYMOUTH

WAREHAM

PHASE 3
(STUDY AREAS 3 & 6)

PHASE 2
(STUDY AREA 7)

PHASE 1
(STUDY AREAS 1 & 2)

PHASE 4
(STUDY AREAS 4 & 5)

POTENTIAL GROUNDWATER DISCHARGE PARCELS

POTENTIAL CENTRALIZED WASTEWATER TREATMENT FACILITY

MASSACHUSETTS MARITIME ACADEMY

SANDWICH

BOURNE

SANDWICH

1

2

3

4

5

6

7

BUTTERMILK BAY

LITTLE BUTTERMILK BAY

GOAT PASTURE POND

HERRING RIVER

QUEEN SWELL POND

BUTLER COVE

BEQUINE POND

CAPE COD CANAL

CAPE COD CANAL

NOTE: WASTEWATER TREATMENT FACILITY AND GROUNDWATER DISCHARGE PARCEL SELECTION IS FOR PLANNING-LEVEL COST ESTIMATES AND ALTERNATIVE COMPARISONS ONLY. MULTIPLE PARCELS WILL BE FURTHER EVALUATED FOR SELECTION DURING PRELIMINARY DESIGN.

Legend

- Phase 1 Service Area
- Phase 2 Service Area
- Phase 3 Service Area
- Phase 4 Service Area
- Potential Groundwater Discharge Parcels
- Study Areas
- Town Boundary
- Parcel Boundary
- Wetlands
- Fresh/Salt Water Features
- Rivers/Streams

0 1,250 2,500 Feet

1 inch equals 2,500 feet

Source: MassGIS and Town of Bourne, October 2006

ALTERNATIVE 1B - CENTRALIZED WASTEWATER TREATMENT AND GROUNDWATER DISCHARGE WITHOUT MMA WWTP EXPANSION

BOURNE WASTEWATER MANAGEMENT STUDY
BOURNE, MASSACHUSETTS

JUNE 13, 2007

Tighe&Bond

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