to determine how much of this freshwater discharges directly to the coast through the seabed or reaches the coast as streamflow (Masterson, 2004).

The total water budget for the Lower Cape Cod aquifer system can be subdivided by individual flow lenses (fig. 6). Subdividing the water budget by flow lens provides a better understanding of the distribution of flow to the various hydrologic features than can be obtained from the total water budget for the entire aquifer system. For instance, the total amount of ground-water discharge to streams is about 21 Mgal/d, or 31 percent of the total water budget for the Lower Cape Cod aquifer system, but nearly 60 percent of that streamflow is in the Herring River in Wellfleet, which bisects the Chequesset flow lens (fig. 1).

Ground-water withdrawals for public supply account for only about 1 percent of the total water budget for the aquifer system; however, almost all of the pumped water is from the Pamet flow lens, composing about 7 percent of its total budget (fig. 6). This pumped water is the primary source of drinking water for the town of Provincetown, parts of the town of Truro, and some NPS facilities in the Provincetown area. Most of the wastewater derived from this public supply is discharged into the Pilgrim flow lens as treated sewage at the Provincetown wastewater-treatment facility.