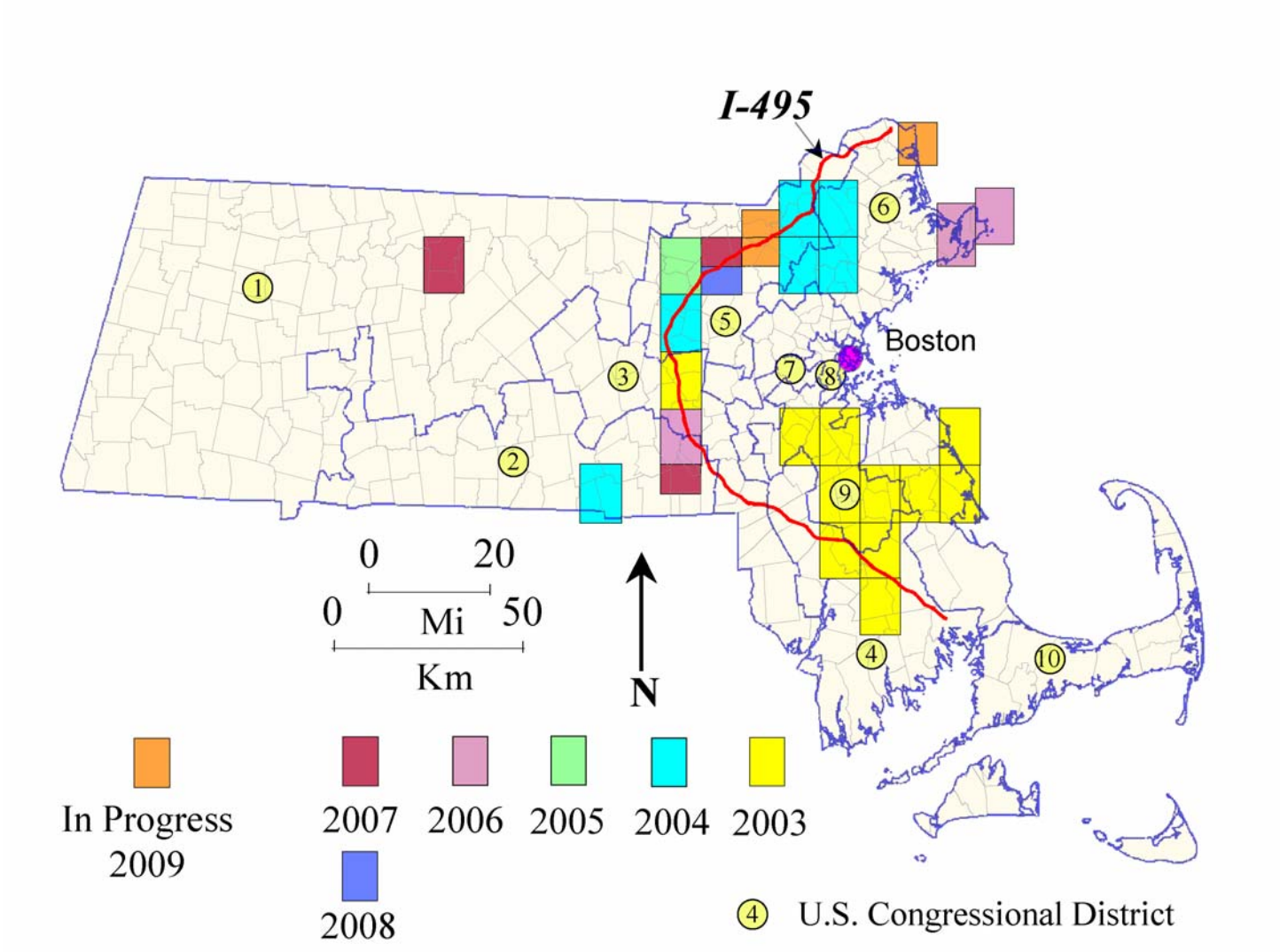
Association of American State Geologists

United States Geological Survey

National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping

MASSACHUSETTS



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SUMMARY OF STATEMAP
GEOLOGIC MAPPING PROGRAM IN MASSACHUSETTS

Federal Fiscal Year	Quadrangles Mapped or Vectorized	State Dollars	Federal Dollars	Total Project Dollars
2003	**Marlborough, Norwood, Blue Hills, Brockton, Taunton, Whitman, Bridgwater, Assawompset Pond, Hanover, Duxbury, Scituate**	**43,432**	**41,209**	**84,611**
2004	**Lawrence, South Groveland, Reading, Wilmington, Hudson, Oxford**	**78,120**	**78,118**	**156,238**
2005	**Ayer**	**60,986**	**60,851**	**124,751**
2006	**Milford, Gloucester, Rockport**	**99,782**	**85,292**	**185,074**
2007	**Westford (north half), Blackstone (north half), Orange**	**66,095**	**68,695**	**134,790**
2008	**Westford (southern half)**	**56,000**	**55,529**	**111,529**
2009	**Billerica (north half), Lowell (south half), Newburyport East (northern portion)**	**145,789**	**108,277**	**245,066**
	Totals	**550,204**	**497,971**	**1,048,175**

Cooperative funding through the STATEMAP component of the National Cooperative Geologic Mapping Program is helping Massachusetts to map or vectorize the bedrock and/or surficial geology of twenty-two, 1:24,000 scale quadrangles. These projects cover 8 of the 10 Congressional districts in Massachusetts and lie within portions of 7 counties, Bristol, Essex, Middlesex, Norfolk, Plymouth, Suffolk and Worcester.

Geologic maps are an important source of natural resource information. Whether you are a contractor responsible for a major civil engineering project, or a business considering erecting a new facility, or simply a future homeowner intending to dig a foundation or drill a water well, planning begins by first consulting a geologic map. These maps are used frequently by geological consultants and by the aggregate industry. As one hydrogeologist reported "The mapping effort was clearly conducted with water resources development of fractured rock aquifers as an anticipated use of these products. …I am not aware of any other geologic quadrangle maps in Massachusetts and New York that present this type of information, and would be encouraged if more maps of this type were prepared".

Geologic maps are essential for evaluating and predicting the consequences of natural and human-induced activities. Such information used in the early stages of planning produces long-term benefits and reduces costs associated with unwanted outcomes after project completion. Some of the typical uses of geologic maps are:

- Evaluation of geologic hazards
- Planning transportation and utility routes
- Site selection for landfills, treatment facilities, schools, waste disposal sites
- Earth science research
- Regulatory decision making
- Development and protection of groundwater
- Environmental assessments and protection planning
- Land use planning

For these uses and for many more, intelligent planning and problem solving begins with a geologic map.

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